

**MONTANA AIR MONITORING  
NETWORK REVIEW  
2002**

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## **2002 MONTANA AIR MONITORING NETWORK REVIEW**

### **1.0 INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) requires the Montana Department of Environmental Quality (DEQ or Department) to conduct an annual review of the State's ambient air monitoring network.

EPA's requirements for an annual network review are in 40 CFR 58.20(d). The requirements maintain that the State must conduct an annual review to determine if the air quality surveillance system or ambient monitoring network (network) meets the monitoring objectives in 40 CFR Part 58, Appendix D. Also, the annual review is to identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations, which are necessary.

The Department is also required by 40 CFR 58.25 to develop and implement an annual schedule to modify the network to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the EPA Regional Administrator during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval by the Regional Administrator. This document and subsequent revisions are intended to satisfy the annual requirements.

#### **1.1 NETWORK REVIEW PROCESS**

In order to conduct this review, the monitoring objective and the spatial scale of representativeness of each station, existing or proposed, are first examined to determine whether they represent the air quality condition of the area. Background information, such as maps, climatological summaries, emission inventories, traffic counts, and modeling results are gathered and reviewed. The opinions of the Department, the seven approved county air pollution agencies, and the EPA are solicited.

In the 1979 Network Review, the Department designated each monitoring site in the State as either a National Air Monitoring Station (NAMS), a State and Local Air Monitoring Station (SLAMS) or a Special Purpose Monitoring station (SPM). The NAMS/SLAMS network is designed to meet six basic monitoring objectives. The monitoring objectives are:

1. To determine highest concentrations expected to occur in the area covered by the network.
2. To determine representative concentrations in areas of high population density.



3. To determine the impact on ambient pollution levels of significant sources or source categories.
4. To determine general background concentration levels.
5. To determine the extent of Regional pollutant transport among populated areas; and in support of secondary standards.
6. To determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation).

The link between the monitoring objectives and the physical location of a particular monitoring site is the concept of spatial scales of representativeness. The spatial scale is determined by the physical dimensions of the air parcel nearest a monitoring station throughout which the actual pollutant concentrations are reasonably similar. The goal in siting stations is to match the spatial scale represented by the sample of monitored air with a spatial scale most appropriate for the monitoring objective. Spatial scales of representativeness, as specified by EPA, are described below:

Microscale -	defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
Middle scale -	defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.
Neighborhood scale-	defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0-kilometer range.
Urban scale -	defines the overall, citywide conditions with dimensions on the order of 4 to 50 kilometers. This scale would usually require more than one site for definition.
Regional scale -	defines a rural area of reasonable homogeneous geography and extends from tens to hundreds of kilometers.

National and Global scales - these measurement scales represent concentrations characterizing the nation and the globe as a whole.

To site a monitoring station properly, both the monitoring objective and the spatial scale of representativeness must be determined. Appropriate siting scales for the various monitoring objectives are listed below:

<u>Monitoring Objective</u>	<u>Siting Scales</u>
Highest Concentration -	Micro, middle, neighborhood (sometimes urban)
Population -	Neighborhood, urban
Source Impact -	Micro, middle, neighborhood
General/Background -	Neighborhood, regional

## 1.2 CRITERIA POLLUTANTS OF CONCERN

Montana is a large state (147,138 square miles) with a small population (902,195 - 2000 U.S. Census). Montana's air quality problems are generally associated with urban areas or in areas susceptible to temperature inversions. Ambient pollutants of concern in Montana include particulate, sulfur dioxide, lead, carbon monoxide, nitrogen dioxide, ozone, and air toxics. These pollutants of concern, physical characteristics and sources, industrial emissions, historical trends, nonattainment areas, and regulatory measures are discussed in order of priority in the following sections.

### 1.2.1 PARTICULATE

Particulate matter is the term given to the tiny particles of solid or semi-solid material suspended in the atmosphere. Particles ranging in size from less than 0.1 micrometer ( $\mu\text{m}$  or microns) to 50 microns are called Total Suspended Particulate (TSP). Particles larger than 50 microns tend to settle out of the air quickly and are not considered having a health "effect". Particulate matter 10 microns in aerodynamic diameter and smaller is considered inhalable and thus has the greatest

health impact. This type of particulate matter is called PM<sub>10</sub>. Particles 2.5 microns in diameter and smaller are thought to be the most damaging and are termed PM<sub>2.5</sub>.

Combustion processes produce ultrafine particulate with particles having diameters smaller than 0.1 micron. This material quickly clumps or coagulates to form particles in the 0.1 to 2.5-micron diameter size range. These combustion products are the bulk of PM<sub>2.5</sub>. Most natural particles like pollen and spores are larger than 2.5, but smaller than 10 microns in diameter. These particles, with PM<sub>2.5</sub> and some fine dust produced in grinding operations are captured as PM<sub>10</sub>. Particulate larger than 10 microns is primarily of geological origin (dust). The finer the particulate, the slower it settles. In still air, PM<sub>10</sub> particles require hours to settle. PM<sub>2.5</sub> material probably never settles and is only removed from the air by rain. As a result, PM<sub>2.5</sub> is the principal cause of visibility impairment, or “haze”.

Particulate matter is Montana's major air pollution problem and receives a high priority from Department staff. The major sources of particulate are reentrained road dust from passing vehicles on paved and unpaved roads, residential wood combustion (RWC), and industrial and agricultural activity. In the past, the State was concerned with TSP and sought ways to control its sources. As a result of the 1977 amendments to the Federal Clean Air Act, several areas of the State were designated nonattainment of either the primary or secondary standard for TSP. The Department developed emission control plans as part of the State Implementation Plan (SIP) to bring the areas into compliance and implemented control strategies to keep them in compliance. On July 31, 1987, the EPA promulgated new ambient air quality standards for particulate matter. The new standards changed the focus from larger particles (TSP) to smaller inhalable particles (PM<sub>10</sub>).

In January 1999, DEQ began a particulate monitoring program for fine particulate or PM<sub>2.5</sub>. Twelve sites are operating in populous areas with a history of high particulate levels and seven Interagency Monitoring of Protected Visual Environments (IMPROVE) sites are providing background and transport information. The IMPROVE network was created in 1988 to monitor visibility in national parks and wilderness areas and it was considerably expanded in 1999. Data from these IMPROVE sites will be used to determine which pollutants must be reduced to deal with visibility impairment problems.

PM<sub>2.5</sub> speciation monitoring began at the Missoula - Boyd Park site in February 2001. Speciation is chemical analysis of the particulate fraction and provides important information about the material's toxicity and origin. This information is essential to any future control efforts. The Missoula site was selected for this very expensive and limited monitoring effort because of its similarity to most of Montana's particulate problem areas.

Since the promulgation of the PM<sub>10</sub> standards several areas in Montana have been

designated nonattainment including Butte, Columbia Falls, Kalispell, Libby, Missoula, Thompson Falls, and Whitefish. The nonattainment provisions of the Clean Air Act mandate definite schedules to show attainment, and provide for sanctions and Federal oversight if the scheduled dates are not met. At this time, all of the PM<sub>10</sub> nonattainment areas have federally approved control plans, or “SIPs”. The PM<sub>10</sub> nonattainment areas continue to require a significant commitment of resources for the SIP development process. The following sections provide further information on the designated PM<sub>10</sub> nonattainment areas and associated regulatory measures implemented.

#### 1.2.1.1 FLATHEAD COUNTY HISTORY

In Columbia Falls an exceedance of the 24-hour PM<sub>10</sub> standard occurred in October 1987, and the area was designated moderate nonattainment for PM<sub>10</sub> in 1990. From September 1989 until April 1990, the Department conducted a source apportionment study in Columbia Falls. The results from this study indicated that fugitive dust was the major contributor to the PM<sub>10</sub> problem. A PM<sub>10</sub> control plan was developed and submitted to the EPA in November 1991. The plan consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition, as well as the Plum Creek facility. EPA approved the Columbia Falls SIP April 14, 1994.

Anticipating promulgation of new PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS), the Department initiated a source apportionment study in Kalispell in 1986 and 1987. The source apportionment study identified reentrained road dust as the predominant source followed by residential wood combustion. Kalispell was designated as a PM<sub>10</sub> moderate nonattainment area in November 1990. A PM<sub>10</sub> control plan for Kalispell was developed and submitted to EPA on June 29, 1990. The final plan (November 1991) consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition. The State received Kalispell PM<sub>10</sub> control plan approval March 19, 1996.

Whitefish was officially designated as a nonattainment area in October 1993. A source apportionment study conducted in Whitefish from January 1993 through March 1994 showed reentrained road dust as the largest source of particulate. EPA approved the Whitefish PM<sub>10</sub> control plan on November 1, 2001.

#### 1.2.1.2 LINCOLN COUNTY HISTORY

From October 1987 until December 1988, the Department conducted a chemical mass balance (CMB) source apportionment study in Libby. The results of the study showed that reentrained road dust and residential wood

combustion were the principal particulate sources. Libby was designated moderate nonattainment for PM<sub>10</sub> in November 1990. A PM<sub>10</sub> control plan for Libby was submitted to EPA on November 25, 1991, and upon review, the EPA requested that the Department commit to several revisions for the plan to be considered for approval. These revisions were submitted to the EPA on May 24, 1993, and the PM<sub>10</sub> control plan was approved on August 30, 1994.

#### 1.2.1.3 MISSOULA COUNTY HISTORY

In 1977, after the passage of the Clean Air Act Amendments, Missoula was designated nonattainment for the primary TSP standards based on data from this site. As part of the SIP to control TSP, the city of Missoula incorporated a systematic program of street sweeping and flushing to show attainment by 1982. Although not part of the plan, Missoula implemented several control measures directed at emissions from residential wood combustion. The control measures brought the area into compliance with the annual standard, but occasionally the 24-hour standard was exceeded.

During the fourth calendar quarter of 1986 and the first quarter of 1987, the Missoula City-County Health Department (MCCHD) conducted a PM<sub>10</sub> source apportionment study. The study showed that the major sources contributing to the PM<sub>10</sub> problem were reentrained road dust and residential wood combustion. Missoula was officially designated moderate nonattainment for PM<sub>10</sub> in November 1990. On January 18, 1994, EPA approved Missoula's PM<sub>10</sub> control plan.

#### 1.2.1.4 SANDERS COUNTY HISTORY

In 1988, a 24-hour PM<sub>10</sub> exceedance occurred in Thompson Falls requiring the State to develop a PM<sub>10</sub> control plan with strategies to bring the area into compliance. The Department conducted a source apportionment study in Thompson Falls from October 1990 until April 1991. This study determined that reentrained road dust was the major contributing source of PM<sub>10</sub> emissions. Minor sources were shown to be wood combustion and the WI Forest Products boilers. A control plan was developed and submitted to the Board of Environmental Review in June 1997. The control strategy involves more frequent street sweeping. EPA approved the Thompson Falls PM<sub>10</sub> control plan on November 1, 2001.

#### 1.2.1.5 SILVER BOW COUNTY HISTORY

During the winter of 1987-88, the Department conducted a source apportionment study in Butte. The study identified the source of particulate

through a combination of optical microscopy, chemical analysis of collected particulate, and computer modeling.

In 1990, Butte was designated as a PM<sub>10</sub> moderate nonattainment area. The Department developed the Butte PM<sub>10</sub> control plan and submitted it to the EPA in November 1991. The control strategies included controls on residential wood combustion, paved and unpaved roads, and new operating permits for area mining activities. As part of the plan submitted in 1991, an emission inventory for Butte for PM<sub>10</sub> was conducted that identified an additional "hot spot" for PM<sub>10</sub> emissions in a residential area near the Harrison Avenue-Interstate 90 intersection. EPA approved the Butte PM<sub>10</sub> control plan on March 11, 1994.

### 1.2.2 SULFUR DIOXIDE

Sulfur dioxide (SO<sub>2</sub>) is a colorless gas with a pungent odor. It is detectable by the human nose at concentrations of about 0.5 to 0.8 parts per million (ppm). It is highly soluble in water where it forms sulfurous acid (H<sub>2</sub>SO<sub>3</sub>). In the atmosphere, sulfurous acid is easily converted to sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), the major acidic component of "acid rain." SO<sub>2</sub> is considered a major worldwide pollution problem. It is emitted mainly from stationary sources that burn coal or oil. Other sources of SO<sub>2</sub> include refineries and smelters. Significant amounts of SO<sub>2</sub> are also emitted from natural sources such as volcanoes, which rarely contribute to urban SO<sub>2</sub> problems.

Sulfur dioxide is a pollutant of concern in the State and there are four areas in Montana where SO<sub>2</sub> is an issue. These are Great Falls in Cascade County, East Helena in Lewis & Clark County, Colstrip in Rosebud County; and the Billings/Laurel area in Yellowstone County, all are discussed in detail in the following sections. In all cases, the source of SO<sub>2</sub> is industrial point sources.

#### 1.2.2.1 CASCADE COUNTY HISTORY

In Great Falls the primary source of SO<sub>2</sub> is the Montana Refining Company petroleum refinery. As the result of dispersion modeling, performed in support of the Montana Refining Company operating permit application, potential exceedances of the SO<sub>2</sub> NAAQS were identified on high ground to the east of the Montana Refining facility. This forced substantial emission reductions before the permit could be issued. A new permit application in 1999, spurred renewed modeling and identified a "hot spot" closer and lower to the facility. The company's operating permit requires SO<sub>2</sub> monitoring in this maximum impact area.

#### 1.2.2.2 LEWIS & CLARK AND JEFFERSON COUNTIES HISTORY

There has been a sulfur dioxide issue in Lewis & Clark County (and Jefferson County) for a number of years. The ASARCO Inc. (ASARCO) primary lead smelter is the only major SO<sub>2</sub> point source in Lewis & Clark County and is located next to the city of East Helena in the Helena Valley. In March 1978, East Helena was designated nonattainment for SO<sub>2</sub>.

Monitoring by ASARCO in the early 1970s revealed exceedances of the SO<sub>2</sub> standard in the East Helena area. In 1975, the Montana SIP was revised to include SO<sub>2</sub> controls that provided for the attainment and maintenance of the SO<sub>2</sub> NAAQS. The strategy limited the emission rate for the sinter plant and called for a 75 percent reduction of SO<sub>2</sub> on an annual basis. As a result of the revised SIP, ASARCO installed a double contact acid plant with several modified stacks to reduce the SO<sub>2</sub> emissions in 1977.

Continued monitoring by ASARCO showed attainment of the SO<sub>2</sub> NAAQS at all sites except the Kennedy Park site (north of East Helena). Night drainage winds from the south along the Prickly Pear Creek often cause emissions to drift to the north. This was the probable cause of high concentrations at the Kennedy Park monitor.

In 1978 and again in 1980, conducted field tracer studies determined the good engineering practice (GEP) stack height for a proposed taller stack. These proposed changes were submitted as part of the East Helena SO<sub>2</sub> control plan. In 1982, a new blast furnace baghouse stack was built. The taller stack allowed emissions to be dispersed at a higher elevation and eliminated high concentrations near ground level.

Data from analyzers in the immediate vicinity of the smelter have shown exceedances, but no violations of the NAAQS or Montana Ambient Air Quality Standards (MAAQs). There were some "violations" of the three-hour SO<sub>2</sub> NAAQS in 1987 at the Highway 518 site, located about four miles from the smelter near a cement manufacturing facility. A data review did not determine any cause for the high readings and it was difficult to determine if the readings were valid. No other violations have occurred since that time.

In April 1991, EPA notified the Department that the East Helena SO<sub>2</sub> control plan had insufficiencies and a revised plan needed to be submitted by May 1992. An inadequate GEP stack height analysis and requirements in the Federal Clean Air Act Amendments of 1990 drove this request.

The Department worked with ASARCO to develop standard operating procedure (SOP) documents and a quality assurance (QA) plan for their SO<sub>2</sub> monitoring network. EPA approved the QA plan on February 23, 1993.

EPA approved the East Helena SO<sub>2</sub> control plan revision for the annual and 24-hour NAAQS on March 28, 1995. DEQ has received comments from ASARCO and EPA on the East Helena 3-hour SO<sub>2</sub> control plan. Progress has slowed on the development of this control plan since ASARCO closed down operations in April 2001. However, the Department will continue to pursue a revised control plan for approval by the Board of Environmental Review.

#### 1.2.2.3 ROSEBUD COUNTY HISTORY

In Colstrip, the industrial sources for SO<sub>2</sub> are four coal-fired power plants. Montana Power Company's Colstrip (Colstrip) Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. The units utilize wet scrubbers for SO<sub>2</sub> control with an efficiency of 70 percent.

In 1978, EPA issued a permit for Colstrip Units #3 and #4. EPA was the issuing agency because, at that time, the State had not been delegated as the prevention of significant deterioration (PSD) permitting authority. The issue of impact on the Northern Cheyenne PSD Class I area resulted in higher stacks and greater control efficiencies for Units #3 and #4. These units use wet scrubbers with lime injection resulting in 90 percent SO<sub>2</sub> control efficiency.

The company maintained an ambient network around the facility through 2001 and continues to support a tribal air monitoring program on the Northern Cheyenne reservation. SO<sub>2</sub> monitoring at the facility was terminated after many years of measuring very low concentrations.

#### 1.2.2.4 YELLOWSTONE COUNTY HISTORY

There are seven major sources in the Billings/Laurel area which emit SO<sub>2</sub>. In Billings, these include Exxon Company USA (oil refinery), Conoco Inc Refinery (oil refinery), Montana Power Corrette Steam Plant (coal-fired electric power generating facility), Western Sugar Company (sugar beet factory), Yellowstone Energy Limited Partnership (coke-fired cogeneration power plant), and Montana Sulphur & Chemical Company (sulfur recovery facility). In Laurel, the major source is the Cenex Refinery (oil refinery). The combined source mix contributes to high ambient readings. In March 1978, the Laurel area was designated nonattainment for SO<sub>2</sub>.

In December 1977, the Billings/Laurel industries and the State signed a stipulation requiring the industries to employ various control options. This stipulation, incorporated into the SIP, provided the framework to bring the



area into compliance with ambient standards. Subsequent monitoring networks for SO<sub>2</sub> have shown the area to be in compliance with the NAAQS, but exceeding the MAAQS.

The 1977 stipulation also commissioned the Department (with industrial funding) to conduct an ambient air quality study to more fully describe the magnitude and geographical extent of the SO<sub>2</sub> concentrations. Another major goal of the study was to identify the relative source contributions from each industrial source.

In 1981-82, the Department (through a cooperative effort with the industries) designed and installed a SO<sub>2</sub> monitoring network. The network consisted of eight SO<sub>2</sub> monitoring sites with meteorological monitoring including upper air measurements employing acoustic radar and pilot balloons. Six of the SO<sub>2</sub> sites were in Billings and two were in Laurel. Using this data, the Department attempted to validate a mathematical model that could predict concentrations from the various SO<sub>2</sub> sources. The model failed for the following reasons: (1) a lack of good emissions data; (2) high concentrations caused by inversion breakup and direct plume impact, which the model could not handle; (3) over-prediction of plume rise by the model; and (4) very small changes in wind direction could cause large differences in predicted versus actual concentrations at receptors located close to the sources. A novel approach was developed using directional analysis and mass emissions to characterize source contributions to the annual average at the worst-case receptor (highest estimated ground-level SO<sub>2</sub> concentration). This was useful, but could not be applied as a predictive tool for short-term averages or at other receptors in the valley.

During 1984 to 1986, the Department explored rule-making options to bring the area into compliance with the SO<sub>2</sub> MAAQS. With no easy administrative solutions in sight, the Montana Legislature passed HB 534 in the 1987 session. This bill exempted the existing Billings/Laurel industries from meeting the MAAQS; they had only to meet the NAAQS (which was being met in Yellowstone County). Acknowledging the State's diminishing role in SO<sub>2</sub> monitoring in Billings, the legislature passed HB 878, and provided state funding for continued monitoring.

Following the 1987 Legislature session, a committee of the Billings/Laurel industries, the local chamber of commerce, and air pollution professionals united to monitor and report on the area's air quality. The Billings/Laurel Air Quality Technical Committee (BLAQTC) was formed in the spring of 1987. The Department is a non-paying member of BLAQTC and works with the group on site selection, quality assurance, and ambient monitoring.

Due to interest by the EPA and environmental groups, the State and Billings/Laurel industries conducted peak five-minute monitoring for SO<sub>2</sub> during the winter of 1990-91. An EPA contractor reviewed the peak five-minute data and its relationship to the hourly averages (peak-to-mean ratios). The results of this review were inconclusive. No additional peak five-minute monitoring for SO<sub>2</sub> is planned by the Billings/Laurel industries. However, the State continues to collect peak five-minute SO<sub>2</sub> data at its sites.

In 1990, E. H. Pechan and Associates (Pechan) developed a SO<sub>2</sub> emission inventory for the Billings/Laurel area. The final report, submitted to EPA in 1991, indicated a large difference between actual and potential SO<sub>2</sub> emissions for most sources.

The City of Billings contracted with GeoResearch Inc. in 1990 to conduct a SO<sub>2</sub> dispersion modeling study for the Billings area utilizing recently gathered meteorological data and the Pechan SO<sub>2</sub> emission inventory. The results of the dispersion modeling study predicted violations of the sulfur dioxide NAAQS at both the potential to emit and maximum actual emission rates.

In 1991, Billings Generation Inc. (BGI) owned by Yellowstone Energy Limited Partnership (YELP) submitted a permit application for construction and operation of a coke-fired cogeneration power facility located adjacent to the Exxon Company USA (Exxon) Refinery. Dispersion modeling performed in support of the permit application predicted violations of the SO<sub>2</sub> NAAQS in the Billings' area as well as PSD increments. The permit for BGI was granted in March 1992, and required a reduction in sulfur dioxide at the Exxon Refinery.

In a March 4, 1993, letter to the Governor of Montana, EPA stated that it determined the SO<sub>2</sub> control plan for the Billings/Laurel area to be substantially inadequate and requiring revision. EPA based the insufficiencies on modeled SO<sub>2</sub> NAAQS violations from the GeoResearch Study and BGI permit application. In addition, EPA determined that the existing control plan did not provide enforceable methods to ensure compliance with the NAAQS.

DEQ, in cooperation with the Billings area SO<sub>2</sub> emitting industries, prepared a major revision to the Billings sulfur dioxide control plan. On May 19, 1995, the Board of Health and Environmental Sciences, now the Board of Environmental Review, adopted SO<sub>2</sub> control plans for six of the seven Billings/Laurel industries. Following this adoption, a control plan for Montana Sulphur and Chemical Company and a revised plan for Exxon Company U.S.A., Billings Refinery, were developed through a contested

case before the Board. As a result of the new Montana Sulphur and Exxon control plans, similar changes were necessary for the other five industries. The Board approved these modifications on August 9, 1996, and the Board made additional modifications to the Exxon control plan on February 7, 1997. The control plans established emission limits on all of the SO<sub>2</sub> emitting sources and required continuous emission monitors on most stacks for compliance determinations.

### 1.2.3 LEAD

Lead (Pb) is a naturally occurring, bluish-gray metal that is found in small quantities in the earth's crust. It is emitted into the atmosphere by automotive emissions (that was phased-out), by smelters (other than iron smelters), and by manufacture of lead storage batteries. In Montana, a 120-year smelting legacy continues today.

#### 1.2.3.1 LEWIS & CLARK COUNTY HISTORY

Lead is a pollutant of concern in East Helena where the predominant source is the ASARCO primary lead smelter. EPA promulgated NAAQS for lead on October 5, 1978. Monitoring data indicated that East Helena violated that standard. The Department conducted extensive studies in the early 1980s to determine source apportionment, and the results indicated that reentrained road dust, soil, fugitive ore concentrates, zinc oxide material, and blast furnace upsets were the primary lead contributors. EPA approved the East Helena Lead SIP, which contained control strategies expected to bring the area into compliance, on July 9, 1984.

As of December 31, 1986, all the control strategies in the plan were implemented; however, ambient air monitoring data for 1987 and 1988 indicated although lead levels decreased, they remained above the lead standard. As a result of the monitoring data, EPA notified Montana that the East Helena lead SIP was inadequate in October 1988.

From 1990 through the first half of 1995, the State, ASARCO, and American Chemet Corp. conducted ambient monitoring, emission inventory estimations, source apportionment studies, meteorological data collection, and dispersion modeling in support of a revised SIP. On August 2, 1993, EPA made a finding that Montana had failed to submit a lead SIP by July 6, 1993, for the East Helena lead nonattainment area. Therefore, sanctions were to be imposed 18 months after the finding (February 2, 1995), unless the State submitted a revised SIP and EPA determined that the revised SIP was complete within that time frame. On February 2, 1995, EPA imposed 2:1 emission offset sanctions in the East Helena lead nonattainment area. EPA received the revised SIP in August 1995 and an additional revision in July

1996. EPA is in the process of reviewing state responses to EPA comments.

#### 1.2.4 CARBON MONOXIDE

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas produced primarily during the incomplete combustion of organic fuels used for transportation and heating. Generally, it is the largest single fraction of gaseous pollutants found in urban atmospheres. Automobile exhaust is the principal source of CO emissions (60-80%) in Montana's major urban areas, with industrial emissions, and agricultural and forestry burning, as well as residential wood combustion in Western Montana, contributing sources.

Carbon monoxide is a pollutant of concern in the larger communities in Montana and in West Yellowstone due to snowmobile activity in the winter. Currently, Missoula is categorized as "moderate" nonattainment for carbon monoxide. On February 9, 2001, the Department submitted a request to EPA to redesignate the Billings and Great Falls "Not Classified" CO nonattainment areas to attainment. On February 21, 2002, EPA published a direct-final rule approving the Billings Limited Maintenance Plan. Great Falls CO redesignation approval is expected within the year. Therefore, Great Falls remains classified as nonattainment, "not classified" for carbon monoxide. Kalispell violated the 8-hour CO NAAQS in January 1996 and is under a "SIP Call." Exceedances, control plans, emission inventories, and related regulatory measures for Great Falls, Kalispell, Missoula, and Billings, in their respective counties, are discussed in detail below.

##### 1.2.4.1 CASCADE COUNTY HISTORY

In 1980, EPA listed Great Falls as nonattainment for CO following sixteen violations of the CO standard between July 1977 and February 1979. The NAAQS for CO is 9.0 ppm for an 8-hour average concentration, not to be exceeded more than once per year. Control plans were developed to bring Great Falls back into compliance following the nonattainment designation.

However, the first control plan had to be withdrawn due to the failure of Montana Refining, a major CO source at that time, to modify their catalytic cracking unit. A second control plan was submitted to EPA in 1987, but approval was never finalized, and Great Falls experienced another violation that same year. Following the 1990 Clean Air Act Amendments (CAAA), Great Falls was reevaluated based on the lack of exceedances in 1988 and 1989 CO monitoring data. EPA listed Great Falls as a "not classified" nonattainment area for CO in 1991. That EPA action required a new emission inventory and development of a maintenance plan for redesignation to attainment.

The Department began a redesignation effort based on a "Limited

Maintenance Plan” strategy (a less restrictive plan for redesignation granted to areas with low ambient CO values or “design” values, like Great Falls) and a 1996 CO baseline emission inventory. Although Great Falls does not have an approved CO control plan, a requirement for redesignation, it was determined by EPA that the 1990 CAAA superseded that requirement with the “not classified” designation. Therefore, Great Falls was allowed to continue the redesignation process with the “Limited Maintenance Plan” strategy. The primary control measure in the plan is a federal program (the Federal Motor Vehicle Emission Control Program) that continues to require cleaner vehicles from car manufacturers over time. Although vehicle miles traveled have increased in Great Falls, ambient CO concentrations have decreased over the last ten years. The plan requires that a CO monitor remain in the Great Falls area and that contingency measures be determined by local and state officials if an exceedance or violation of the CO standard occurs.

In the event of an exceedance, the local and state officials will be notified of that exceedance within 60 days. The Department and local officials will recommend appropriate contingency measures based on the meteorological conditions leading up to the exceedance, information on historical exceedances of the standard, and estimated growth within the Great Falls area and vehicle emissions. The possibility of an exceptional or natural event will also be evaluated. Following the review of that information, the contingency measure(s) will be proposed for local adoption. The local adoption process will be completed within three months of the exceedance notification. However, the contingency measures will not be implemented until a violation has occurred. The measures need to be implemented within one year of the violation. Per EPA requirements, the contingency measures included in the plan are oxygenated fuels and wood stove curtailment programs. Contingency measures listed in the plan are suggested, NOT required measures.

#### 1.2.4.2 FLATHEAD COUNTY HISTORY

In January 1996, Kalispell had an 8-hour NAAQS CO violation. DEQ submitted a draft CO emission inventory for base year 1996 to EPA in May 1997. A control plan is yet to be submitted, with completion pending publication of the Mobile 6 Emission Factor Model. The intersection where the violation occurred was modified during the summer of 2000 to improve traffic flow. The intersection reconstruction project will be re-analyzed to measure its effect on reducing CO emissions and to determine whether oxygenated fuels would be required as a CO control measure. Kalispell has recorded no additional exceedances of the 8-hour CO standard since 1996.

#### 1.2.4.3 MISSOULA COUNTY HISTORY

On March 3, 1978, Missoula was designated as CO nonattainment based on air quality data collected near the intersection of South Avenue, Brooks, and Russell Streets (Malfunction Junction). In August 1981, DEQ submitted a revised CO control plan that detailed a plan to bring the area into compliance. The plan called for the reconstruction of the Malfunction Junction intersection including limited turn lanes, changing timing sequences for the traffic lights, and increased vehicle speeds. Additional reconstruction was performed on a portion of Highway 93 between Mount Avenue and Reserve Street. The reconstruction was completed in late 1985.

EPA and the Department were concerned that area-wide sources such as residential wood combustion combined with traffic emissions contribute to elevated CO levels at other areas in Missoula. In July 1988, EPA notified the Department that the Missoula CO control plan was substantially inadequate. The Department and Missoula County prepared an emission inventory and submitted it to EPA in December 1989. No comments were received from EPA on the adequacy of this emission inventory.

Due to provisions in the Clean Air Act Amendments of 1990, Missoula was further classified as a "moderate" nonattainment area, in November 1991. "Moderate" areas are those that have a CO design value between 9.1 and 16.4 ppm for an eight hour average. Also, the provisions required implementation of an oxygenated fuels program.

The oxygenated fuels program was initiated October 1, 1992. On November 6, 1992, the Department submitted a revised Missoula CO control plan, based on the oxygenated fuels program. In July of 1995, EPA received the CO emission inventory utilizing 1990 base year data. Compiled Missoula reasonable further progress (RFP) emission inventories for 1993 and 1996 were completed in March 2000. Redesignation is being planned for completion by the end of 2003.

#### 1.2.4.4 YELLOWSTONE COUNTY HISTORY

In 1978, EPA listed Billings as nonattainment for CO as a result of the 1977 Clean Air Act Amendments. The NAAQS for CO is 9.0 ppm for an 8-hour average concentration, not to be exceeded more than once per year. Control plans were developed to bring Billings back into compliance following the nonattainment designation. The CO violation was attributed

primarily to motor vehicle emissions. The first CO control plan included intersection reconstruction at Exposition and First Avenue. The final CO control plan incorporated computer modeling with the reconstruction in the first plan, and was approved by EPA in 1986. Following the 1990 CAAA, Billings was reevaluated based on the lack of exceedances in 1988 and 1989 CO monitoring data. EPA listed Billings as a “not classified” nonattainment area for CO in 1991. That EPA action required a new emission inventory and development of a maintenance plan for redesignation to attainment.

The Department began a redesignation effort based on a “Limited Maintenance Plan” strategy (a less restrictive plan for redesignation granted to areas with low ambient CO values or “design” values, like Billings) and a 1996 CO baseline emission inventory. The primary control measure in the plan is a federal program (the Federal Motor Vehicle Emission Control Program) that continues to require cleaner vehicles from car manufacturers over time. Although vehicle miles traveled have increased in Billings, ambient CO concentrations have decreased over the last ten years. The plan requires that a CO monitor remain in the Billings area and that contingency measures be determined by local and state officials if an exceedance or violation of the CO standard occurs.

In the event of an exceedance, the local and state officials will be notified of that exceedance within 60 days. The Department and the Yellowstone County Air Pollution Control (YCAPC) program will recommend appropriate contingency measures based on the meteorological conditions leading up to the exceedance, information on historical exceedances of the standard, and estimated growth within the Billings area and vehicle emissions. The possibility of an exceptional or natural event will also be evaluated. Following the review of that information, the contingency measure(s) will be proposed for local adoption. The local adoption process will be completed within three months of the exceedance notification. However, the contingency measures will not be implemented until a violation has occurred. The measures need to be implemented within one year of the violation. Per EPA requirements, the contingency measures included in the plan are oxygenated fuels and wood stove curtailment programs. Contingency measures listed in the plan are suggested, not required measures.

Effective use of contingency measures also provide areas like Billings (following redesignation) with an opportunity to maintain status as an attainment area even if a violation has occurred. Whereas, without this redesignation plan, if Billings experienced a violation of the CO NAAQS,

it would be designated by EPA as a full nonattainment area and be required to develop a control plan to bring the area back into attainment.

#### 1.2.5 NITROGEN DIOXIDE

Nitrogen dioxide (NO<sub>2</sub>) has not been a pollutant of major concern in Montana. NO<sub>2</sub> is formed when nitric oxide (NO) is oxidized in ambient air. NO<sub>x</sub> (oxides of nitrogen) is a term used to represent both NO<sub>2</sub> and NO. Emission inventories for point and area sources are usually expressed as NO<sub>x</sub> whereas the standard is for NO<sub>2</sub>.

Point sources of NO or NO<sub>2</sub> in the State include coal-fired power plants, natural gas compressor stations, oil refineries, and a kraft paper mill. A new source of some concern is temporary electric power generators installed in response to the rapid increase in electricity costs. Mobile sources primarily include automobile tailpipe emissions.

The Department has not monitored for NO<sub>2</sub> in several years. Additional monitoring by the Department would identify the current relationship of NO to NO<sub>2</sub> baseline conversions in airsheds subject to industrial permits. If resources become available the Department will conduct monitoring in Missoula and Billings. However, there has been some company monitoring for NO<sub>2</sub> required as conditions of PSD permits in Colstrip and Missoula, and are discussed below.

##### 1.2.5.1 MISSOULA COUNTY HISTORY

The NO<sub>2</sub> issue in Missoula County centers on the Smurfit-Stone Container Corporation (Stone) kraft pulp mill near Frenchtown. In May 1987, the company received a PSD permit from the State to burn petroleum coke in their four lime kilns. To date, only one lime kiln has been converted to burn coke. As a permit condition, Stone Container was required to operate one NO<sub>2</sub> monitoring site near their facility. The data collected and submitted to the State by Stone showed very low concentrations with no violations of the NAAQS or MAAQS, and monitoring was discontinued in 1992.

##### 1.2.5.2 ROSEBUD COUNTY HISTORY

The NO<sub>2</sub> issue in Rosebud County centers on Montana Power Company's four coal-fired power generating plants in Colstrip. Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. In 1978, an EPA PSD permit and State-operating permit were issued for Colstrip Units #3 and #4. In 1999, the Colstrip units emitted approximately 32,561 tons of NO<sub>2</sub> (Appendix B).



Ambient data submitted show no violations of the NAAQS or MAAQS.

#### 1.2.6 OZONE

Ozone (O<sub>3</sub>) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, ozone is not emitted directly into the atmosphere, but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NO<sub>x</sub>), and solar radiation. Both VOC and NO<sub>x</sub> are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in ozone production, ozone concentrations are expected to peak in the summer months.

The Department conducted ozone monitoring in Billings in 1988 and 1989, and is again considering monitoring near Billings when resources become available. Billings is an area where sources emit substantial quantities of VOC and NO<sub>x</sub>. Billings also has the hot summer days, which promote the photochemical reactions for ozone formation.

#### 1.2.7 AIR TOXICS

Air toxics cover a far-ranging suite of hazardous substances, emitted in either gaseous or particulate phases. For many years the only air toxics measured in Montana were various heavy metals (e.g., lead, arsenic, cadmium, chromium, etc.) associated with particulate emissions from the minerals industry.

Sources of air toxics are diverse and numerous. Some point sources include the oil and gas industry, mineral extraction and processing, chemical and cement plants, and wood products industry. Some area-wide sources include dry cleaners, gas stations, residential wood combustion, and motor vehicle repair/refinishing facilities. Mobile sources include tailpipe emissions from automobiles, trains, and airplanes.

The Department and Missoula County conducted a formaldehyde screening study in Missoula for the winter of 1993-94. The study showed low atmospheric formaldehyde concentrations. Another screening study for formaldehyde was conducted in Missoula from January through December 1997. The final report for the 1997 study was completed in 1998.

In 2000, a two-year study to investigate the relationship between volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and PM<sub>2.5</sub> started in the Missoula Valley. Chemical analyses include determining anion and cation, elemental, organic and elemental carbon, and polycyclic aromatic hydrocarbon (PAH) concentrations. The final report is to evaluate the relationships between airborne pollutants (both gaseous and particulate) in the Missoula airshed and collected data will be used in a chemical mass balance source apportionment model.

### 1.3 NETWORK MONITORING HISTORY

From the inception of the Montana air quality program, the Department has developed and maintained an air monitoring network covering problem areas throughout the State. In the 1960s the Department used high volume samplers (hi-vols), dustfall buckets, "Montana Boxes" (for fluoride), and sulfation plates to assess ambient air quality impacts from various sources. Initial program development selected monitoring locations based on field investigations, complaints, surveys, public interest, and professional judgement of the staff.

In the early to mid-1970s, other monitoring devices were purchased. These included gas bubblers for SO<sub>2</sub> and NO<sub>2</sub>, hi-vols with metal shelters (earlier versions were made of wood), and continuous analyzers (primarily for SO<sub>2</sub>). During this time period, metals analyses began on hi-vol filters collected near smelting and mining activities.

From mid to late 1970s, the monitoring effort was refined as more sophisticated equipment became available and was deployed in the field. The State became involved in several special-purpose air pollution studies. The Department conducted the Montana Air Pollution Study (MAPS) in which extensive ambient air monitoring was performed in Anaconda, Billings, Butte, and Missoula. The purpose of the study was to relate air pollution concentrations with measured human health effects within and between the different communities. The Department published several documents detailing the results of the study.

At about the same time, the Department was also involved with investigative and background studies for the Flathead River Basin Environmental Impact Statement (Kalispell, Columbia Falls, Polson, etc.), Poplar River project (by Scobey in northeast Montana), and energy development in eastern Montana (primarily in the Colstrip area).

As a result of the 1977 Amendments to the Clean Air Act, several areas in Montana were designated nonattainment for various NAAQS based on air quality data. Air quality monitoring increased in these areas as SIPs were being developed. Field sampling, emission inventory estimates, and dispersion modeling allowed staff to focus on worst-case or maximum concentration sites (primarily) in CO and TSP nonattainment areas.

In 1978, the EPA promulgated a standard for lead. Emphasis on lead monitoring and investigations to determine maximum concentration sites were conducted in the East Helena area as part of the original SIP. The present day East Helena TSP/lead monitoring network evolved from this study.

In 1981-82, an SO<sub>2</sub> surveillance network was established as a condition of the 1977 Stipulation with the Billings/Laurel industries and the State. The network, at that time, contained eight SO<sub>2</sub> monitoring sites equipped with meteorological sensors and one upper air station. Industrial locations, topography, wind roses, emission estimates and past ambient

data were used to situate the sites in suspected maximum concentration locations or where the public may be affected.

SO<sub>2</sub>, meteorological, TSP, NO<sub>x</sub>, and Pb monitoring networks were set up in East Helena and Colstrip which essentially encircled the point sources. These multiple site networks allowed adequate coverage (regardless of the wind direction) to determine maximum concentrations from the sources.

The Montana Air Quality Program changed further with the formation of the Standing Air Monitoring Work Group (SAMWG) in 1975, at the request of the EPA Deputy Administrator. This group was made up of people representing state and local air pollution control agencies, EPA Headquarters, and EPA regional offices. The purpose of this group was to critically review and evaluate current air monitoring activities, develop more effective air monitoring strategies, help correct identified problems, improve overall current operations, and meet projected air monitoring goals.

The SAMWG developed a number of recommendations. These were promulgated in the Federal Register on May 10, 1979 and later updated on March 19, 1986 and July 1, 1987 (40 CFR Part 58).

The areas covered included:

Appendix A - Quality Assurance Requirements for State and Local Air Monitoring Stations.

Appendix B - Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring.

Appendix C - Ambient Air Quality Monitoring Methodology.

Appendix D - Network Design for State and Local Air Monitoring Stations and National Air Monitoring Stations.

Appendix E - Probe Siting Criteria for Ambient Air Quality Monitoring.

Appendix F - State and Local Air Monitoring Stations Air Quality Annual Report.

Appendix G - Uniform Air Quality Index and Daily Reporting.

In the State's first Network Review (1979), the Department designated each monitoring site in the State as a National Air Monitoring Station (NAMS), a State and Local Air Monitoring Station (SLAMS) or a Special Purpose Monitoring Station (SPM). The NAMS/SLAMS network was developed to meet the four basic monitoring objectives as listed in Section 1.1 (two additional monitoring objectives have been added to this section relative to PM<sub>2.5</sub> monitoring).

Table 1 in Appendix A provides a narrative regarding any changes or modifications to the statewide ambient air monitoring network operated by the Department, county agencies, and some industrial entities, that occurred during Fiscal Year 2001-2002 or are proposed for Fiscal Year 2003. Table 2 of Appendix A provides a listing of current air monitoring stations operated by State, county governments, and some industries.

## 2.0 AMBIENT MONITORING NETWORK COVERAGE

This section addresses air quality problems and concerns within each Air Quality Control Region (AQCR) and county, as listed in Figure 2-1. It is a continuation of discussions presented in Section 1.2 regarding specific pollutants and problem areas. The Population numbers come from the 2000 census. Each of the EPA criteria pollutants is discussed individually regarding data collection and appropriate correlations.

The review analyzes pollutant emissions, ambient data, and meteorological data related to specific sites or problem areas. The review is intended to show that existing monitoring sites should continue to operate (because they still serve a purpose) or are not needed and should be terminated. There are some instances where some sites may need to be modified in order to meet an intended purpose.

The Department conducts meteorological monitoring utilizing various weather instruments to measure wind speed, wind direction, and temperature variables. The resulting parameters are used in support of the analysis of air pollution data and to estimate pollutant concentration through dispersion models. A discussion of meteorological monitoring areas is included in Section 2.7.

# MONTANA

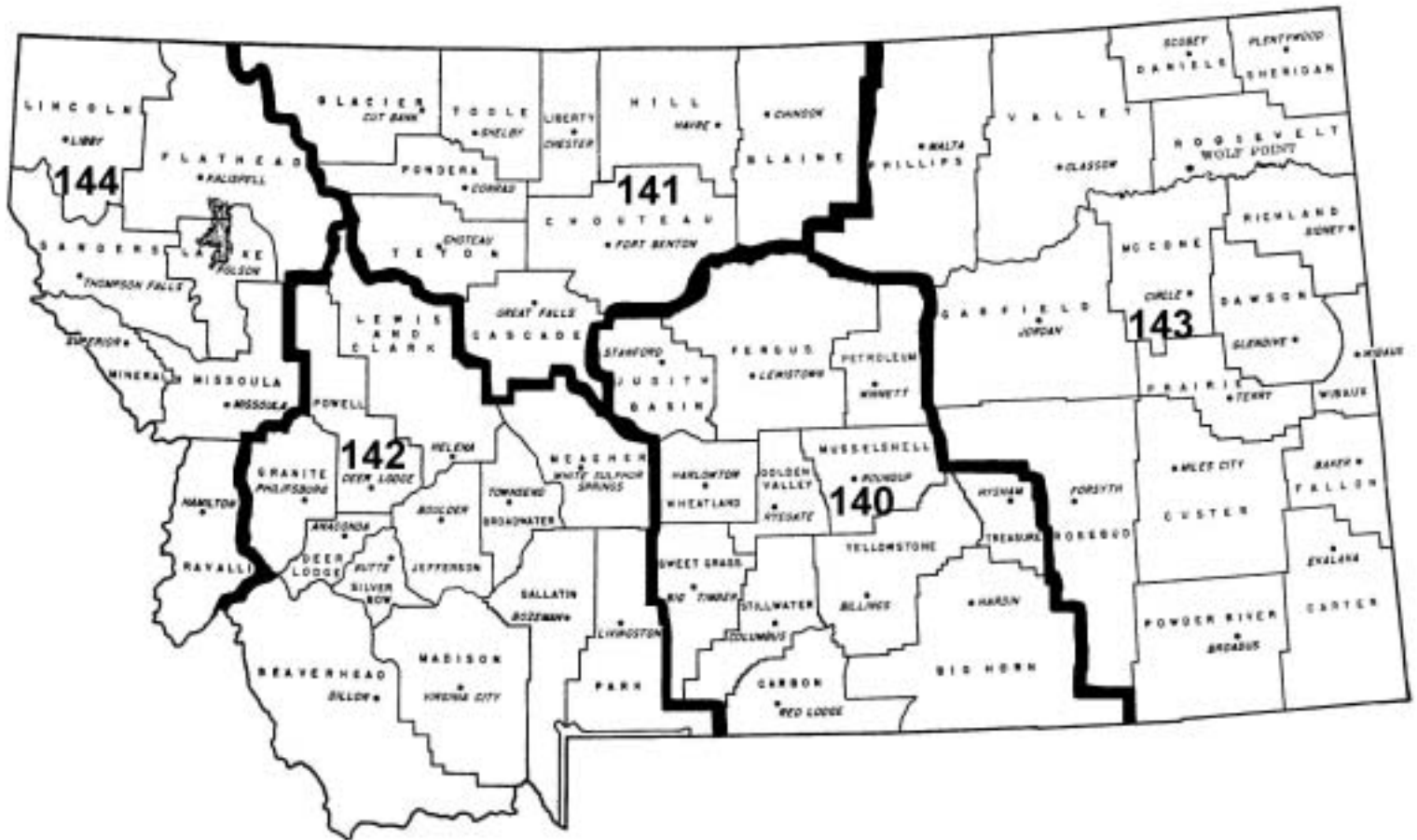


Figure 2-1. Montana Air Quality Control Regions

## 2.1 PARTICULATE AREAS

Particulate matter is the largest air pollution problem in the State and has historically received a high priority from the Department. In some portions of the State, there is a total suspended particulate (TSP) record dating back to 1970. From this long historical data base the Department has learned many of the significant factors that contribute to particulate pollution in Montana. It is clear that the most important factors are a combination of meteorology and topography. Mountain valleys and frequent temperature inversions often lead to particulate being trapped close to their emission source for days at a time. The ensuing particulate matter build-up has caused many communities with relatively small particulate emission rates to exceed Federal particulate standards.

In the 1970's and 1980's, a statewide TSP network was run by the Department. Data from this network proved that very few areas in the eastern portion of the State had concentrations close to primary or secondary TSP standards. Consequently, the majority of the Department's present particulate monitoring is conducted in the State's mountainous western region.

Particulate emission sources in Montana are diverse. Point sources typically can be placed into one of the following categories: coal and ore mining, non-metallic mineral processing (e.g., talc, lime, and phosphate mines), wood products industries, slash burning, and wood and coal fired power generation. Although some of these sources are significant (Appendix B), they are typically located in relatively remote areas where the threat to public health is minimal. Of greater concern in the State are area sources. Examples of area sources include reentrained road dust, residential wood combustion, and tailpipe emissions. These sources in combination with localized point sources are the cause for most of the particulate problems in Montana.

TSP particulate monitoring evolved into sampling for particulate matter less than and equal to 10 microns in diameter ( $PM_{10}$ ) because of promulgation of the 1987 Federal ambient air quality standard. A similar change is happening even now as a result of the 1997 promulgation of the  $PM_{2.5}$  standard.  $PM_{10}$  monitoring began in the summer of 1985, and continues, while  $PM_{2.5}$  monitoring began in January 1999 at eight sites. On January 1, 2000, four new  $PM_{2.5}$  sites came online in Belgrade, Great Falls, Hamilton, and Thompson Falls, bringing the  $PM_{2.5}$  network to a total of 12 sites. An additional refinement of particulate monitoring was added in February of 2001 with the start of  $PM_{2.5}$  speciation sampling in Missoula. Speciation is a partial chemical characterization of the collected particulate, providing insight into its source.

As part of the latest particulate NAAQS Revisions, starting in January 1998, DEQ began reporting  $PM_{10}$  data at local conditions, as well as Standard conditions, while TSP data continues to be reported at Standard conditions.  $PM_{2.5}$  data is reported at local conditions.

NAAQS changes in 1997 also established a normal sampling frequency of every third day for State and Local Air Monitoring Stations (SLAMS). The sampling frequency can

be reduced to every sixth day if the site meets a waiver requirement based on statistical analysis of recorded concentrations. The statistical values, T-statistic (*t-stat*), are based on the last three years of data and are included in Table 3 of Appendix A. DEQ is requesting an exemption from the increased sampling frequency required by the revised PM<sub>10</sub> NAAQS. This request is included in the Annual Network Review at the request of EPA, Region VIII, and with the understanding that the requirement for increased sampling schedule applies only to monitors that are part of Montana's SLAMS network.

There are currently seven (7) PM<sub>10</sub> sites that already meet the increased sampling schedule by utilizing continuous PM<sub>10</sub> monitors (TEOMs). One site, Whitefish – Markus Foods (#30-029-0039), was closed in March 2001 due to a major construction project at the Markus Foods building. A replacement site began operating in October 2001 just south of the river on US 93. The new site (30-029-0009) continues to utilize the TEOM to meet the increased sampling frequency requirement. In addition, changes were made in Missoula in April 2002. The TEOM was moved from the Boyd Park site (#30-063-0024), to the Missoula – Health Dept. Roof (#30-063-0031) site. At Boyd Park, a manual PM<sub>10</sub> sampler will replace the TEOM. Since the calculated t-stat value at the Boyd Park site is well below the required  $-1.886$  ( $-8.296$ ), DEQ believes the 1-in-6 sampling schedule will be adequate.

The remaining exemption requests are based on t-stat values that are listed in Appendix A-Table 3. All sites, except for one, have t-stat values that are less than the required  $-1.886$ . One site, Lincoln – 1<sup>st</sup> Bank (#30-049-0025), has a t-stat value greater than  $-1.886$ . However, this site is an SPM site, and exempt from the increased sampling schedule. In addition, comparison of PM<sub>10</sub> and PM<sub>2.5</sub> at the Lincoln – 1<sup>st</sup> Bank site has convinced DEQ that we should be monitoring PM<sub>2.5</sub> in Lincoln, and we currently plan to terminate the First Bank PM<sub>10</sub> site at the end of the calendar year, and open a new PM<sub>2.5</sub> site with fewer air flow problems.

In addition, the DEQ has five sites (#30-031-0002, #30-031-0008, #30-031-0012, #30-081-0001, and #30-089-0007) that operate on a 1-in-6 schedule during the summer months (2<sup>nd</sup> and 3<sup>rd</sup> Quarter), and increase that frequency to 1-in-3 during the winter months (4<sup>th</sup> and 1<sup>st</sup> Quarters). DEQ would like to maintain the current summer schedule (1-in-6) for these sites and has included them in the exemption request, but will operate all sites with increased 1-in-3 winter sampling schedules. We believe this schedule will better serve our goals as a monitoring unit and will correspond better to the PM<sub>2.5</sub> sampling schedule.

Table 4 in Appendix A, lists current and proposed PM<sub>10</sub> network sampling frequencies. All PM<sub>2.5</sub> sites operate on the one-in-three sampling frequency, while all collocated PM<sub>2.5</sub> and PM<sub>10</sub> sites run on a one-in-six sampling schedule.

The following subsections present brief descriptions of the particulate monitoring sites that have been operated or administered by the Department. Included in the descriptions are summaries of the sources that have impacted the areas; relevant topographic and



meteorological information; discussions of the data collected; and future recommendations for the sites.

## 2.1.1 AQCR 140 - SOUTH CENTRAL MONTANA

### 2.1.1.1 FERGUS COUNTY

Fergus County (population 11,893) is located in central Montana and contains several outlying frontal ranges of the Rocky Mountains including the Snowy Mountains, Judith Mountains, and Moccasin Mountains. The major city in Fergus County is Lewistown (population 5,813). The topography around Lewistown is similar to a mountain valley with frequent temperature inversions, which often leads to particulate being trapped close to their emission source for days at a time. The major sources of particulate include reentrained road dust and residential wood combustion.

TSP monitoring was conducted in Lewistown from January 1980 through December 1983 and no exceedances of the standard were found.

### 2.1.1.2 YELLOWSTONE COUNTY

Yellowstone County (129,352) is located in south central Montana and is bisected by the Yellowstone River. The major cities in the County are Billings (population 89,847) and Laurel (population 6,255) which are located along the Yellowstone River Valley floor. On the north and south edges of the valley, the rimrocks rise abruptly above the valley floor. The valley is approximately 12 miles wide in Laurel, but on the eastern edge of Billings, the rimrocks form a constriction that is only about one mile wide. The prevailing winds are from the southwest and are channeled down the valley. The winds are usually responsible for good dispersion, but occasional temperature inversions do occur.

Particulate monitoring has been conducted in Yellowstone County since 1971. Initial sampling used the standard hi-vol samplers for TSP. Although there have been several TSP sites in Yellowstone County, only those in the central part of Billings recorded elevated concentrations.

PM<sub>10</sub> monitoring in Billings started in December 1986, and continues today at the Lockwood Park (30-111-1065) site. There has never been a recorded PM<sub>10</sub> exceedance at any site in Billings.

Sampling was conducted at the Diamond Parking site (30-111-0078) from November 1992 until April 1994 when the site was shut down due to site lease problems. The site was moved two blocks south and was operating at

the Norwest site (30-111-0081). On the west end of Billings, Yellowstone County Air Pollution Control (YCAPC) developed the Mount Olive site (30-111-0079) which started collecting data in July 1994. Sampling for PM<sub>10</sub> at Lockwood Park started in January 1996. The Department terminated PM<sub>10</sub> sampling at Mt. Olive and Norwest in 1997 due to low PM<sub>10</sub> concentrations. The maximum 24-hour PM<sub>10</sub> concentration recorded during 1999 at Lockwood Park, was 111 µg/m<sup>3</sup> (reported at local conditions).

PM<sub>2.5</sub> sampling was started at Lockwood Park in January 1999. Since PM<sub>10</sub> sampling continues at the same site it affords an opportunity to compare the two size fractions of particulate.

## 2.1.2 AQCR 141 - CENTRAL MONTANA

### 2.1.2.1 CASCADE COUNTY

Great Falls is Montana's second largest city with a population of 56,690 and is located at the confluence of the Missouri and Sun Rivers. Topography plays an important part in the climate of Great Falls. The municipal airport and National Weather Service office are located on a plateau about 200 feet higher than downtown Great Falls, which contributes to marked temperature differences between the two. The Continental Divide to the west, and the Big Belt and Little Belt Ranges to the south are primary factors in producing the frequent wintertime chinook winds in this part of Montana. The prevalence of chinook winds creates a relatively high average wind speed, which promotes good ventilation in the community most of the time.

Particulate monitoring has been conducted in Cascade County since 1971. Initial sampling used standard hi-vol TSP samplers. There have been several TSP sites in Cascade County, but only those in the central part of Great Falls and Black Eagle had elevated concentrations.

In 1985, PM<sub>10</sub> monitoring started at the Downtown site (30-013-0017) in Great Falls and the site continued until 1988. Also, PM<sub>10</sub> and TSP sampling occurred at the Fire Station site (30-013-0009) during this same time frame. The Department reviewed the data and determined that the Fire Station site was the maximum concentration site for Great Falls. The Department moved the PM<sub>10</sub> sampler from the Downtown site to the Fire Station in July 1988. The Department terminated PM<sub>10</sub> sampling at the Fire Station site in 1997 due to low PM<sub>10</sub> concentrations.

PM<sub>2.5</sub> monitoring began at Great Falls High School (30-013-1026) January 1, 2000. This site is in a residential neighborhood near the city's center. Fine particulate is the pollutant most likely to accumulate and become

troublesome during stagnant conditions so the values coming from this site provide an excellent measure of air quality in Great Falls.

### 2.1.3 AQCR 142 - SOUTHWESTERN MONTANA

#### 2.1.3.1 BEAVERHEAD COUNTY

The principal  $PM_{10}$  air quality concern in Beaverhead County centers on industrial activity six miles south of Dillon around the Barretts Minerals Inc. talc plant. Dillon is located near the center of the Beaverhead Valley. The valley floor is about 5400 feet in elevation with relatively low (6700 feet) rolling mountains located ten miles to the west. Although higher mountain ranges such as the Pioneer, Snow Crest, and Ruby are nearby, the Dillon area is open and experiences good ventilation.

In September 1984, a monitoring site for TSP was established at the Beaverhead County Courthouse (30-001-0001). This site operated for two years until June 1986. The monitoring data showed relatively low readings and continued monitoring was not warranted.

#### 2.1.3.2 BROADWATER COUNTY

Broadwater County is located in west central Montana. The east boundary of the County is on the crest of the Big Belt Mountains. Broadwater County is sparsely populated (4,385) with most of the county dominated by dry land farming. The Missouri River dissects Broadwater County. Canyon Ferry Reservoir on the Missouri River is the dominant feature in the county. The  $PM_{10}$  area of most concern in Broadwater County centers on the city of Townsend (population 1,867). Current particulate monitoring is limited to operating permit required monitoring at some mines.

#### 2.1.3.3 GALLATIN COUNTY

The  $PM_{10}$  areas of most concern in Gallatin County (population 67,831) center on the cities of Bozeman and Belgrade. Bozeman (population 27,509) lies at the eastern edge of the Gallatin Valley and is home to Montana State University. Bozeman does not have any major air pollution sources, but does have problems with traditional area-wide sources such as emissions from paved and unpaved roads, and residential wood combustion. Belgrade, with a population of 4,846 lies nine miles west of Bozeman. Belgrade has one major air pollution point source, the Louisiana Pacific Corporation sawmill, whose emissions include a wood-fired boiler and dust from the log deck. Belgrade's main particulate emission sources include paved and unpaved roads, residential wood combustion, and the sawmill.

The dimensions of the Gallatin Valley are approximately 12 miles wide and 20 miles long. This large area typically allows pollutants to disperse with moderate to fast wind speeds. However, during fall and winter, infrequent calm inversion conditions do allow elevated PM<sub>10</sub> concentrations to accumulate around the urban areas. Also, winter road sanding contributes to elevated PM<sub>10</sub> concentrations from reentrained road dust in the spring.

The Department has been monitoring for particulate matter in Bozeman since 1978. The primary site has been at the East Main City Building (30-031-0002). Other locations were also monitored for TSP, however, the East Main site proved to be the worst-case site in Bozeman at that time.

In 1985, the Department installed a PM<sub>10</sub> monitor at the East Main site and in 1987, when the PM<sub>10</sub> standard was promulgated, the Department discontinued all Bozeman area TSP monitoring. The Department installed a second PM<sub>10</sub> sampler at the East Main site on January 11, 1991. Recently, the Bozeman area's population has exploded, creating traffic congestion and other factors that contribute to increased PM<sub>10</sub> concentrations. Thus far Bozeman has not recorded any exceedances of the PM<sub>10</sub> standard, either 24-hour or annual; however, further investigation is required to determine if the current site is still a maximum concentration site.

In Belgrade, the Department received numerous complaints and a public petition for air quality monitoring in the city. Although the community is small, it has experienced some urban sprawl from nearby Bozeman and has a major sawmill whose emissions include a wood-fired boiler and dust from the log deck. However, the main concern is centered on dust from paved and unpaved roads. The Department installed two PM<sub>10</sub> samplers in a central location in an open field behind a grain elevator. Sampling started in October 1991 at the ConAgra (30-031-0008) site, and collocated sampling began in July 1997. Since sampling began readings have been low, with an occasional high reading; the highest was 137 ug/m<sup>3</sup> (reported at Standard conditions) on November 11, 1993. The Department added PM<sub>2.5</sub> monitoring to the Belgrade site on January 1, 2000. A comparison of 2000 PM<sub>10</sub> and PM<sub>2.5</sub> values revealed a 2.5/10 ratio of 0.43. This is very similar to Helena and would indicate a pretty normal ratio of smoke to dust. Both would appear to be somewhat elevated.

In the southern end of Gallatin County, West Yellowstone and Big Sky are becoming PM<sub>10</sub> concerns. West Yellowstone is a main entrance to Yellowstone National Park, and experiences high traffic counts nearly year round. Particulate emissions come from dirty streets, residential wood combustion (RWC), and motor vehicle tailpipes, especially in the winter with

high snowmobile traffic.

Big Sky, a rapidly growing year-round resort area, is located on the west side of the very narrow Gallatin River Canyon in the Madison Mountain Range. This area's main PM<sub>10</sub> emission source is suspected to be wood smoke from RWC and summer forest fires/controlled burns.

In October 1994, a PM<sub>10</sub> site (30-031-0009) was installed just east of West Yellowstone at the West Entrance Station of Yellowstone National Park. This micro-scale sited PM<sub>10</sub> sampler mainly monitored snowmobile traffic travelling past the West Entrance Station. The sampler was located immediately east of the kiosk (ticket booth). Data from this site was entered into the AIRS database. The site was discontinued on March 24, 1995, following consistently low values.

The Department installed a PM<sub>10</sub> sampler in a vacant lot near the intersection of Firehole Avenue and Dun Raven Street. The Firehole site (30-031-0012) became operational on November 27, 1995. Measured annual averages have been around 20 µm/m<sup>3</sup>. If all of the material being measured as PM<sub>10</sub> was in fact 2.5 micrometers and smaller, the measured values would be significant. It would be useful to perform PM<sub>2.5</sub> measurements in the West Yellowstone community.

#### 2.1.3.4 JEFFERSON COUNTY

Particulate concerns in Jefferson County (population 10,049) center around area sources in the northern part of the county. This part of the county serves as a bedroom community for persons living near and commuting to Helena. The northern part of Jefferson County includes the unincorporated communities of Montana City and Clancy as well as several adjacent subdivisions. These communities are located along the Prickly Pear Creek drainage with the Continental Divide range to the west and the Elkhorn Mountains to the east. The terrain tends to funnel the airflow on a north-south axis, but the area does experience temperature inversions and calm winds.

The Montana City School has been a proposed location for several years for a PM<sub>10</sub> site. This proposed site is located in northern Jefferson County near Helena and East Helena. The Ashgrove Cement Inc. plant is located a short distance northeast of this site and the ASARCO lead smelter to the north. This is a fast growing residential area with emissions from residential wood combustion and reentrained road dust that may impact the Helena area. These area sources have the potential to cause elevated particulate concentrations.

#### 2.1.3.5 LEWIS & CLARK COUNTY

Most particulate problems in Lewis & Clark County (population 55,716) center around the city of Helena (population 25,780) and the town of East Helena (population 1,642). These two communities are situated near the southern end of the Helena Valley. The valley is large (approximately 16 miles by 16 miles), lies east of the Continental Divide, and is surrounded by mountains on all sides. Diurnal temperature inversions and inversions lasting for a few days are common. Predominant wind direction is from the northwest through southwest.

Particulate monitoring has been conducted in Lewis & Clark County since 1957. Early sampling was performed using standard hi-vol samplers for TSP. Many years of particulate monitoring in Helena has been conducted at the Cogswell Building (30-049-0001) near the state capitol building. The Department terminated the Cogswell site on September 20, 1997 due to low PM<sub>10</sub> concentrations.

There have been several other sites in Helena, some were associated with Lewis & Clark County's wood stove curtailment program. PM<sub>10</sub> sampling began in Helena in 1985 when the Cogswell TSP sampler was converted to PM<sub>10</sub>. Starting in 1991, the Department added the Lewis & Clark County Health Department's Lincoln School (30-049-0018) PM<sub>10</sub> site to its SLAMS network. Concentrations at this site have been consistently low. A new PM<sub>10</sub> site at Rossiter School (30-049-0024) in the Helena Valley started data collection on November 5, 1996.

Visibility data was collected using a nephelometer at the Lincoln School site (30-049-0018) from December 1988 to March 1993. The county used the visibility data, correlated to PM<sub>10</sub> levels, to call alerts for their mandatory wintertime wood stove curtailment program. The nephelometer was replaced with a Tapered Element Oscillating Microbalance (TEOM) in October 1993. The TEOM outputs near real-time PM<sub>10</sub> data. Year around data from the TEOM has been stored in AIRS since start-up and will continue indefinitely. PM<sub>2.5</sub> monitoring was begun at the Lincoln School site in January 1999. The Helena Valley was heavily impacted by forest fires during the summer of 2000, and the 24-hour particulate standards were exceeded on several occasions.

A considerable amount of particulate sampling has also been conducted in the East Helena area. Most of this particulate sampling has been conducted in connection with lead analyses around ASARCO's primary lead smelter. The earliest TSP/Pb monitoring in East Helena (monitoring with data submittal to AIRS) was in 1972. Please refer to Section 2.3.1.1 for a complete discussion

on current TSP/Pb monitoring and proposed network modifications in East Helena. Also, Table 4 in Appendix A lists TSP/Pb sampling frequencies in East Helena.

PM<sub>10</sub> monitoring was established September 1, 1997 in Lincoln at Lincoln 1<sup>st</sup> Bank (30-049-0025). Lincoln is located west of the Continental Divide in the Blackfoot River Valley. Lincoln is situated in a deep, narrow river valley in a mountainous area with limited air dispersion and little control over open burning and residential wood burning. The Lincoln area typically experiences numerous inversions and poor visibility during the winter months. A maximum 24-hour PM<sub>10</sub> concentration of 130 µg/m<sup>3</sup> (reported in local conditions) was measured in 1999. The highest concentrations have occurred during the late autumn, winter, and early spring. This timing implies that smoke is the most likely pollutant, but it does not exclude an occasional dusty day caused by winter traction material. PM<sub>2.5</sub> sampling colocated with the PM<sub>10</sub> sampling over the last year found that almost all of the material being collected during this time period is PM<sub>2.5</sub>, and that the fine particulate standard is the one most likely to be exceeded.

#### 2.1.3.6 SILVER BOW COUNTY

Butte is a city with an urban population of approximately 34,000. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually low and the area is susceptible to temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit mining area and the new part of town is built on the valley floor to the south.

Particulate monitoring has been conducted in Silver Bow County since 1971. In 1978-80, the Department conducted TSP monitoring in Butte as part of the Montana Air Pollution Study (MAPS). The network consisted of five sites in the city center. The Department observed that the city center sites and specifically the Greeley School site (30-093-0005) had the highest particulate concentrations. The Department decreased its network to this single site in 1984. The Department started daily PM<sub>10</sub> sampling at the Greeley School site in September 1987.

In January 1991, the Department established the Butte-Greenhouse site (30-093-0008) located near the Harrison Avenue-Interstate 90 intersection, because the 1991 SIP identified this location in the maximum emission grid. However, during the two years of operation, the Greenhouse site consistently had lower readings than the Greeley School site. With EPA approval, the Department shut down the Greenhouse site at the end of June 1992.

Visibility data was collected using a nephelometer at the Butte-Greeley School site (30-093-0005) from July 1989 to March 1993. The visibility data, correlated to PM<sub>10</sub> concentrations, was used by the Butte-Silver Bow County Health Department (BSBHD) to call air pollution alerts for their mandatory wintertime wood burning curtailment program. The BSBHD nephelometer was replaced with a TEOM that started operating in August 1993. Year around data from the TEOM has been stored in AIRS since start-up. Manual PM<sub>10</sub> sampling was discontinued in 1997. PM<sub>2.5</sub> monitoring was begun at this site in February 1999.

#### 2.1.4 AQCR 143 - EASTERN MONTANA

##### 2.1.4.1 RICHLAND COUNTY

The air quality concerns in Richland County (population 9,667) center around Sidney. Sidney (population 4,274) is situated close to the Yellowstone River near the North Dakota border. In the late 1970's and early 1980's, the area experienced an economic upturn due to oil and gas exploration and development. Other industrial sources in the Sidney area include Montana Dakota Utilities (coal-fired power plant) and Holly Sugar Corporation (sugar beet processing facility).

In 1983, the Department installed a hi-vol sampler in downtown Sidney (30-083-0010). This site operated until September 1987. At that time the PM<sub>10</sub> standard had been promulgated by EPA and the Department felt that its resources were better applied to PM<sub>10</sub> problems in the western valleys.

##### 2.1.4.2 ROSEBUD COUNTY

The air quality concern for particulate in Rosebud County (population 9,383) centers around the cities of Colstrip and Ashland. In the vicinity of Colstrip there are five coal-fired power generating plants and two large coal mines. Montana Power Company Colstrip (Colstrip), Western Energy Company, Colstrip Energy Limited Partnership (CELP), and Big Sky Coal Company have operated particulate sampling networks around their facilities as conditions of their permits. In Ashland, there have been recent concerns due to area sources including wood and coal burning stoves.

The Department requested Montana Power (in Colstrip) to install and operate a PM<sub>10</sub> site at their MPC Site #3 (30-087-0700). Two samplers (reporting and collocated) were installed in December 1989 and the data was submitted to the Department. The TSP samplers at MPC Sites #1 & #2 (30-087-0701 and -0702, respectively) were replaced with PM<sub>10</sub> samplers in July 1992. At that time the Department required MPC to operate the PM<sub>10</sub> samplers at all sites



on an every third day sampling schedule. In July 1994, MPC requested that the Department review their Colstrip PM<sub>10</sub> network. As a result of that review, changes were allowed starting on July 1, 1995. The PM<sub>10</sub> sampling frequency at Site #1 was reduced to once every sixth day and the PM<sub>10</sub> sampling at Site #2 was terminated. The long history of low values led to termination of Site #1 in 2002.

#### 2.1.5 AQCR 144 - NORTHWESTERN MONTANA

This part of Montana is very mountainous and heavily forested. The valleys of northwestern Montana have the poorest atmospheric dispersion in the State, and high particulate concentrations historically have been a problem in this area. Two areas were originally designated nonattainment areas for TSP and now AQCR 144 has eight PM<sub>10</sub> nonattainment areas. The Department has devoted considerable time and resources to solving the particulate problem in northwest Montana.

##### 2.1.5.1 FLATHEAD COUNTY

The particulate problems in Flathead County (population 74,471) center on the communities in the greater Flathead Valley. These communities include Columbia Falls, Kalispell, and Whitefish.

Columbia Falls is an industrial town of 3,645 people located in the northeast corner of the Flathead Valley. In the vicinity of Columbia Falls are a plywood-particle board-sawmill complex, an aluminum reduction plant, and two other sawmills. Wind patterns in the area are dominated by drainage winds through Badrock Canyon to the east and through a gap north of town which drains the North Fork of the Flathead River. The area is susceptible to temperature inversions in the fall and winter months.

Particulate monitoring has been conducted in Columbia Falls since 1971. Initial sampling was performed using standard hi-vol TSP samplers. The two principal sites were at the Anders Residence (30-029-0005) and the Junior High School (30-029-0003). In May 1985, the Department installed a PM<sub>10</sub> sampler at the Junior High School. The Anders Residence site was closed in 1987 after collected TSP data from both sites were compared and determined they were measuring the same air mass.

The Department continues to operate PM<sub>10</sub> samplers at the Junior High School site. Ambient PM<sub>10</sub> data from 1988 through present has shown no violations of either the annual or short-term PM<sub>10</sub> standards. Complaints about dust from a bark processing facility on the north edge of town lead to informal sampling in the nearby neighborhood starting in July 2000, and ultimately to the establishment of a new monitoring site just south of the bark

processing facility. The new site has proven to be consistently higher than the old Jr. High School site which will be closed at the end of 2002.

Kalispell has a population of 14,223 persons, and the majority of the 74,471 county residents live within a 15-mile radius of the city. Kalispell serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the Continental Divide and is a fairly wide valley (14 miles across). The climate is mild with calm or low wind speeds and the area is susceptible to temperature inversions in the fall and winter.

Particulate monitoring has been conducted in Kalispell since 1971. From 1977 to 1982, Kalispell was one of the communities involved with the Flathead River Basin Environmental Impact Statement (EIS). Monitoring was conducted at several locations in the basin and it was determined that most of the high concentration sites were associated with anthropogenic sources in the city centers.

Visibility data was collected using a nephelometer at the Courthouse East site (30-029-1017) in Kalispell from January 1991 to March 1993. The nephelometer was used to estimate particulate levels for the voluntary wintertime wood burning curtailment program. The nephelometer was replaced with a TEOM in October 1993. Year round data from the TEOM has been stored in AIRS since start-up. In 1995, this site was shut down and the TEOM moved to the Kalispell Universal Athletics (30-029-1015) PM<sub>10</sub> site. On June 27, 1995, EPA approved the Department's request to replace manual PM<sub>10</sub> samplers at selected sites with TEOMs.

The Universal Athletics site has long had problems with adequate airflow, security, and convenience. In response to these problems, the TEOM was moved to the new central Kalispell site at Flathead Electric (30-029-0097) on July 1, 1999. A comparison of manual PM<sub>10</sub> data from the Universal Athletics site with TEOM data from the Flathead Electric site indicated that the Flathead Electric site adequately represented the area, so the Universal Athletics site was closed in June 2001.

Another PM<sub>10</sub> site was developed northeast of Kalispell along U.S. Highway 2 at the Evergreen Fire Station (30-029-0043). A Plum Creek sawmill and plywood plant is located 0.5 mile west of the site. This site started operation in June 1994 and produced some mid-range PM<sub>10</sub> concentration values. In 1998, the sampler was collocated and the sampling frequency was increased. The resulting site was overcrowded and in poor condition. Review of the data showed that while the siting was source oriented, the measured values had never been very high and had been declining each year. Since the site was representative of only a small population and the source did not warrant

monitoring, the Evergreen Fire Station site was terminated at the end of 1999.

PM<sub>2.5</sub> monitoring in Kalispell was first conducted at the Evergreen Fire Station site starting in January 1999. Space problems and the desire for a site more representative of population exposure led to a decision to relocate the PM<sub>2.5</sub> monitors to the new Flathead Electric site, which is nearer the city's center. This move was completed in June of 1999.

Whitefish is a city of approximately 5,032 people located in the northwest corner of the Flathead Valley. Whitefish is not a major commercial or industrial center, but a year around tourist destination. The area is susceptible to temperature inversions in the fall and winter months.

As part of the Flathead River Basin EIS, the Department measured TSP in Whitefish from 1981 to 1983. The data showed that the area was in compliance with the TSP NAAQS. However, the Department believed that the site was not located in the maximum concentration area. As a result of the 1990 Network Review, the Department installed a PM<sub>10</sub> site located in the central business district of Whitefish at Markus Foods (30-029-0039). Since sampling began in April 1991 numerous PM<sub>10</sub> exceedances have been recorded at the Markus Foods site. An exceedance was recorded at Markus Foods on March 24, 1997 with a measured value of 178 µg/m<sup>3</sup>.

To confirm the Markus Foods site as the maximum concentration PM<sub>10</sub> site, a PM<sub>10</sub> saturation study was done during February through April 1993. Eleven sites, most were located in areas with potentially high PM<sub>10</sub> levels, were chosen and portable saturation samplers were deployed. The results of the study revealed that elevated PM<sub>10</sub> levels occurred in the general downtown area and on south U.S. Highway 93, with no statistical difference between the two areas. A TEOM was placed at the Markus Foods site in August 1995 with a manual PM<sub>10</sub> sampler. A collocated manual PM<sub>10</sub> was installed on January 1, 2000 to replace the collocated site lost due to Evergreen Fire Station site closure. PM<sub>2.5</sub> monitoring was begun in January 1999 at Markus Foods. A maximum 24-hour PM<sub>2.5</sub> value of 27 µg/m<sup>3</sup> (reported in local conditions) was measured in 1999.

Structural changes at Markus Foods and a growing business in roasted chicken (the resulting smoke was vented to the roof) forced closure of the site in March of 2001. A replacement site in the downtown area was not possible, and a new site was established on U.S. 93 where it enters downtown.

#### 2.1.5.2 LINCOLN COUNTY

The particulate problems in Lincoln County center on the communities of Eureka, Libby, and Troy.

Eureka is a small town in northwestern Montana with a population of approximately 1,100. The town is situated in rolling hills along the Tobacco River approximately five miles upstream from Lake Koocanusa. Particulate monitoring for TSP started in 1984. Twenty-four hour concentrations exceeded the short-term TSP NAAQS on a few occasions. In 1987, the Department replaced the TSP sampler with a PM<sub>10</sub> sampler and sampling continued through June 1992. Since PM<sub>10</sub> levels were low, sampling was discontinued.

Libby is a small town with a population of approximately 2,626. It is located along the Kootenai River in northwestern Montana. The Kootenai Valley runs approximately east to west in Libby and is only about 2 miles wide. The Libby area may have the worst ventilation of any community in Montana. During the fall and winter months, winds are almost always calm or light. The light winds with the persistent temperature inversions contribute to the significant accumulation of particulate in the narrow valley.

Particulate monitoring has been conducted in Libby since the mid-1970s. The principal TSP sites were at the Brown Residence (30-053-0010) and the Lincoln County Courthouse (30-053-0012).

In May 1985, the Department installed a PM<sub>10</sub> sampler at the Courthouse site; in August 1985, the Department discontinued the TSP sampler at the Brown Residence. Data analysis revealed that hi-vol TSP samplers at the Lincoln County Courthouse and the Brown Residence sites were measuring the same airshed.

Visibility data was collected using a nephelometer at the County Courthouse Annex site (30-053-0018) in Libby from December 1986 to October 1993. The nephelometer was operated by the Lincoln County Health Department and was used to call alerts for their mandatory wintertime wood burning curtailment program.

The Department replaced the nephelometer with a continuous PM<sub>10</sub> TEOM monitor at the Lincoln County Annex site (30-053-0018), which is one block east of the Courthouse site. The TEOM began operating in October 1993 and was used for the Libby RWC curtailment program, the Montana Smoke Management program, and to correlate data with the PM<sub>10</sub> samplers at the Courthouse. On April 1, 1995, the Courthouse site was shut down. The TEOM became Libby's primary SLAMS PM<sub>10</sub> compliance monitor. PM<sub>2.5</sub>

was added at the Courthouse Annex site in January 1999 and the samplers were collocated a year later. Measured winter-time PM<sub>2.5</sub> values are the highest in Montana, and it appears unlikely that Libby will be in compliance with the PM<sub>2.5</sub> NAAQS. To better understand the situation and identify the source of the particulate, PM<sub>2.5</sub> speciation sampling was started in February 2002.

Troy is a small town 18 miles west of Libby with a population of approximately 1,000. The town is situated along the Kootenai River Valley and like Libby has some of the worst ventilation in the State. In October 1991, the Department installed two samplers at the high school (30-053-0019) in the northwestern part of town. Readings were consistently low for the three years that the site was operated. The site was shut down June 30, 1995.

#### 2.1.5.3 MISSOULA COUNTY

Particulate problems in Missoula County center on the city of Missoula. Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers in western Montana. The city proper has a population of approximately 51,000, but the Missoula Valley contains approximately 75,000. The Missoula Valley is fairly narrow, approximately 6 miles across. The valley is susceptible to temperature inversions in the fall and winter months and wind speeds are normally low throughout the year.

Particulate monitoring in Missoula has been conducted since 1971 at several sites in the Missoula Valley. During the early and mid 1970's, the highest concentrations were measured in the downtown area at the Courthouse Roof site (30-063-0001).

Over the years, the air-monitoring network in Missoula has been quite extensive and comprehensive. The Missoula City-County Health Department (MCCHD) has monitored for particulate at several locations and has operated sites in Bonner (near a major sawmill/plywood factory), in Lolo (at the waste water treatment plant), near Frenchtown (by a kraft pulp mill), in East Missoula, in the Rattlesnake area, in southwest Missoula near the south hills, and on the western edge of the city. In 1984, MCCHD also started collecting PM<sub>10</sub> data at their Rose Park (30-063-0020) and Boyd Park (30-063-0024) sites in addition to TSP data. The maximum PM<sub>10</sub> concentration recorded in 1984 was 257 µg/m<sup>3</sup> at Rose Park. In 1985, the County Health Department (30-063-0031) TSP site was established and PM<sub>10</sub> sampling started in 1987.

Continuous PM<sub>10</sub> data has been collected in Missoula since 1987 using continuous PM<sub>10</sub> monitors (Beta attenuation type and TEOM) at the Boyd

Park site. The continuous PM<sub>10</sub> data has been submitted to AIRS since 1992. Missoula local government personnel use the continuous PM<sub>10</sub> data and forecast information from the National Weather Service to make predictions for their mandatory wintertime residential wood burning curtailment program. In 1995, the Boyd Park TEOM became the site's primary compliance and SLAMS monitor. PM<sub>2.5</sub> monitoring, primary and collocated, began in February 1999. PM<sub>2.5</sub> speciation began on a one in three schedule in March of 2001.

PM<sub>2.5</sub> monitoring was also started on the Health Department roof (30-063-0031) in February 1999. This site is shared with a manual PM<sub>10</sub> sampler operating every six days.

Following a Health Department building renovation in 2001, the monitoring network was restructured for greater efficiency. Since analysis of the PM<sub>2.5</sub> data shows little difference between the Health Department and Boyd Park, all PM<sub>2.5</sub> monitoring was moved to the Health Department roof. PM<sub>10</sub> monitoring at the Health Department became continuous using the TEOM relocated from Boyd Park. At Boyd Park, PM<sub>10</sub> sampling continues using a manual sampler on a one in six schedule (see Appendix A-Table 3 for t-stat calculations).

The emission inventories developed in the 1992 SIP showed that the highest particulate concentration grids were in south Missoula (where the Boyd Park site is located) and in downtown Missoula (where the Health Department site is located). The Department and the MCCHD will continue to operate these two sites to track compliance with the NAAQS.

MCCHD operates two PM<sub>10</sub> sites (in cooperation with Stone Container) near their Frenchtown kraft pulp mill. These sites were operated as TSP sites until May 18, 1992, when the samplers were switched to PM<sub>10</sub> samplers.

The Department installed a PM<sub>10</sub> monitor in Lolo (Lolo Lube Center #30-063-0035) with siting oriented toward "hot spot" traffic monitoring. Data collection began on August 4, 1997 and ended in June 2000. Over the period of operation, the maximum 24-hour value detected was 52 µg/m<sup>3</sup> with the annual average was at about 15 µg/m<sup>3</sup> (both reported at local conditions).

#### 2.1.5.4 RAVALLI COUNTY

Particulate concerns in Ravalli County center around the city of Hamilton. Hamilton is a small (population 3,705), but rapidly growing community situated in the center of the Bitterroot Valley. Hamilton is about 50 miles south of Missoula and about 300 feet higher in elevation. Hamilton often

experiences better wintertime ventilation than nearby Missoula. There are times, however, when temperature inversions in Hamilton can trap pollutants and cause elevated levels.

In 1983, the Department began TSP sampling at the Ravalli County Courthouse (30-081-0001) in the city center. Sampling was initiated due to citizen complaints about dust and wood stove emissions. In 1986, the Department installed a PM<sub>10</sub> sampler at the same location and continued to collect TSP and PM<sub>10</sub> data until 1987.

On July 31, 1987, the EPA promulgated new standards for PM<sub>10</sub>. Due to the low concentrations recorded at the Hamilton site, the Department discontinued both TSP and PM<sub>10</sub> monitoring during the fall 1987.

Due to the growing population and renewed citizen concerns, the Department reopened the Ravalli County Courthouse PM<sub>10</sub> site (30-081-0001) in June 1994. A second site, MT Gold Realty (30-081-0002) was installed two blocks away adjacent to U.S. Highway 93 and began operation in July 1994. The MT Gold site has consistently produced PM<sub>10</sub> values higher than the Courthouse site. Neither site measured PM<sub>10</sub> concentrations that exceeded the NAAQS. The Department terminated the Courthouse site on July 31, 1997, due to low PM<sub>10</sub> concentrations. While the MT Gold Realty site showed higher particulate concentrations than the Courthouse site, the values were not high, and the trend was toward steadily declining values. With the decision to add PM<sub>2.5</sub> monitoring in Hamilton and the development of electrical problems at the MT Gold site, the Department terminated MT Gold on October 6, 1999 and reopened the Courthouse site. The Courthouse site is more representative of the community and far superior in terms of access and reliable operation. PM<sub>10</sub> sampling resumed at Hamilton Courthouse on October 9, 1999 and PM<sub>2.5</sub> sampling started on January 1, 2000.

The Bitterroot National Forest voluntarily started two new PM<sub>10</sub> sites in the Bitterroot Valley to measure forest related burn activities on the valley's air quality. One site is located at the Stevensville-Ranger Station (30-081-0003) approximately 30 miles south of Missoula. This site uses a TEOM to provide continuous data. Low PM<sub>10</sub> values have been consistently reported since the site started in July 1994. The other site is located at the West Fork Ranger Station (30-081-0004) along the West Fork of the Bitterroot River south of Darby and about 20 miles south of Hamilton. This sites proved difficult to support during the forest fires of 2000, so the West Fork Ranger Station site was closed. Construction of a new “fire cache” warehouse forced relocation of the Stevensville-Ranger Station site a short distance north and east in 2001.

#### 2.1.5.5 SANDERS COUNTY

Particulate concerns in Sanders County center around the city of Thompson Falls. Thompson Falls is a small town with a population of approximately 1,500 persons. It lies on the north side of the Thompson Falls Reservoir, a small impoundment on the Clark Fork River. The Clark Fork Valley around Thompson Falls runs east and west; mountains rise to 7000 feet both to the north and south of Thompson Falls. Like other western Montana valleys, the area experiences severe temperature inversions during the fall and winter months.

The Department conducted limited TSP monitoring in the early 1970's and again in 1978. It was not until 1983 that the Department established a permanent TSP site at the Sanders County Courthouse (30-089-0003). Readings collected during the first few years showed levels exceeding the NAAQS for TSP. In 1985, the Department installed a PM<sub>10</sub> sampler at the same location. The PM<sub>10</sub> data from 1985 to 1987 was limited, but did record concentrations approaching the proposed NAAQS for PM<sub>10</sub>.

In February 1988, the Sanders County Courthouse site recorded a PM<sub>10</sub> concentration in excess of the 24-hour PM<sub>10</sub> standard. The Department initiated daily sampling in July 1988, which continued until July 1, 1992. In 1990, CMB monitors were installed at the Railroad site (30-089-0005), and at the Muster Ranch site (30-089-0006).

A decision to re-roof the courthouse forced the Department to remove the site on July 8, 1999 and create a new site at the High School. The new Thompson Falls High School site (30-089-0007) started PM<sub>10</sub> sampling October 3, 1999 and PM<sub>2.5</sub> sampling was added beginning January 1, 2000.

## 2.2 SULFUR DIOXIDE AREAS

As mentioned in Section 1.2.2, there are only four areas in the State where SO<sub>2</sub> is an issue or concern. These are the Billings/Laurel area in Yellowstone County, East Helena in Lewis & Clark County, Great Falls in Cascade County, and Colstrip in Rosebud County.

### 2.2.1 AQCR 140 - SOUTH CENTRAL MONTANA

#### 2.2.1.1 YELLOWSTONE COUNTY

The sulfur dioxide issue in Yellowstone County has been with the air quality



program since its inception in the mid to late 1960s. Early monitoring with sulfation plates and SO<sub>2</sub> analyzers showed that the Laurel area exceeded air quality standards and the Billings area measured elevated levels.

Billings and Laurel are situated along the Yellowstone River Valley in south central Montana, which runs southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, cliffs or rimrocks located both north and south of the river cause channeling. The distance between the north and south rims of the cliffs range from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel including all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smokestacks.

Wind roses in the area are reflective of the valley orientation. The predominant wind direction is from the southwest with northeast being the second most predominant direction. As with many areas in Montana, the area experiences inversions in the fall and winter months. This causes pollutants to become trapped and build up for extended periods. Inversion breakup occurring after sunrise causes built-up concentrations to lower to the ground and results in elevated readings measured at the monitoring stations. With frontal passage or higher wind speeds, winds can cause plumes to directly impact the ground resulting in high SO<sub>2</sub> concentrations.

In 1981-82, the Department (through a cooperative effort with the industries) designed and installed a sulfur dioxide monitoring network. The network consisted of eight SO<sub>2</sub> monitoring sites with meteorological monitors and an upper air site employing acoustic radar and pilot balloons. Six of the SO<sub>2</sub> sites were in Billings and two were in Laurel.

Following the 1981-82 study, the SO<sub>2</sub> monitoring network was scaled down in various stages until it reached a minimum early in 1987. The network was scaled down to four sites in 1983: Coburn Road (30-111-0066), Lockwood Park (30-111-0065), North Johnson Lane (30-111-0064) and Taft School (30-111-0064). It should be noted that no sites were kept in the Laurel area since the two sites in the 1981-82 study showed compliance with the NAAQS and MAAQS. The Department felt that greater emphasis was needed in the Billings/Lockwood area. In December 1983, the Taft School site was shut down to reduce the operator's workload in Billings. The network of three continued until June 1986 when a leasing problem caused the Department to shut down the North Johnson Lane site. In January 1987, the Department shut down its Lockwood Park site due to further cutbacks of personnel in the Billings office. At that time the network was reduced to a single site, Coburn Road, which has been the backbone of the network.

The 1987 Legislature provided additional funding and the State was able to add one additional site, Scottish Rites (30-111-0073), to its network. At the same time, the six Billings/Laurel industries combined resources to address SO<sub>2</sub> issues including monitoring. The Billings/Laurel Air Quality Technical Committee (BLAQTC) was formed in the spring 1987. BLAQTC hired a contractor, purchased equipment and installed three SO<sub>2</sub> monitoring stations. Two of the sites were in Billings, Lockwood Park (30-111-1065) and Coulson Road (30-111-2004), and one was in Laurel, Laurel-BLAQTC (30-111-0016). By the end of 1987 the combined State and BLAQTC network consisted of five sites.

In November 1988, the Department started collecting peak five-minute SO<sub>2</sub> averages for each hour. The EPA met with the Department and BLAQTC in February 1990 and offered two SO<sub>2</sub> analyzers to conduct peak monitoring in the range from 1 to 5 ppm. In September 1990, the Department and BLAQTC installed one of these monitors at the Coburn Road site and the other at the Lockwood Park site. These monitors collected peak five-minute data for six months until March 1991. Peak data was also collected at the other three sites with analyzers in the range of 0 to 1 ppm. After completion of the study, an EPA contractor reviewed and analyzed the data; the results were inconclusive. The Department continues to collect peak five-minute SO<sub>2</sub> data, but none is collected at the industry sites. For the calendar year of 2002 the Department is collecting and reporting not just the maximum five minute value in each hour, but all of the five minute values in each hour.

The 1987 monitoring network remained the same until October 1989. Upon agreement with the Department and BLAQTC, the Scottish Rite site was moved to Ponderosa School (30-111-0076) and the Coulson Road site was moved to Brickyard Lane (30-111-2005). The group felt that the old sites had served their purpose and that higher SO<sub>2</sub> concentrations might be found at the new sites. The EPA approved all of these sites in a letter dated May 14, 1990.

On June 30, 1992, the Ponderosa School site was shut down due to low readings. EPA approved this action in a letter dated June 22, 1992. The Ponderosa monitoring shelter was moved to the Coburn Road location, approximately 30 feet west of the existing air monitoring trailer. In an attempt to reduce vandalism, the instruments in the original Coburn Road trailer were moved to the new (e.g., old Ponderosa) shelter on October 1, 1992. The old Coburn Road trailer was surplus.

Dispersion modeling for the Billings Generation Inc (BGI) facility operating permit, indicated elevated SO<sub>2</sub> levels in the Lockwood area. The Department

reviewed and refined the results of the modeling studies and concluded that additional SO<sub>2</sub> monitoring sites were needed. At the location of the modeled maximum SO<sub>2</sub> "hot-spot" the Department installed an SO<sub>2</sub> monitor. The site, Sacrifice Cliff (30-111-0080), was approved by EPA effective May 19, 1993, and data collection began at that time. Also, as a result of the permitting process, BGI operates SO<sub>2</sub> monitors at two other modeled "hot-spots". The first one, Johnson Lane (30-111-2006), is located near Johnson Lane, south of I-90, and east of the existing Lockwood Park site. The second site, Pine Hills (30-111-2007), is located east of the I-90/I-94 junction, in the elevated terrain near the Pine Hill School. EPA approved both sites on March 7, 1994 with data collection starting on November 2, 1993.

The Sacrifice Cliff site measured the highest SO<sub>2</sub> values in the system through 1996 when a change to low sulfur coal at the BGI facility resulted in a dramatic drop. Since then it has consistently measured lower values than the Coburn Road site. The Sacrifice Cliff site was terminated in June 2001.

A consortium of Billings' industries installed an SO<sub>2</sub> analyzer at the Mt. Olive site with data collection starting on December 1, 1995. This group also started a new site at Senior High School (30-111-2008) with CO, SO<sub>2</sub> and meteorological monitoring. SO<sub>2</sub> data collection at Senior High began December 26, 1995. Sampling at the Mt. Olive and Senior High sites were discontinued on July 1, 1997.

In August 1999, an additional SO<sub>2</sub> site began operation on Coburn Road approximately 0.5 mile north of the existing Coburn Road Site. The new station, Lower Coburn Road (30-111-0083), is predicted to have moderately high concentrations with high frequency. This site is proposed to encounter the annual average maximum.

To better document population exposure and monitor trends, DEQ reopened the Mt. Olive site in the growing, west end of Billings. The site began monitoring SO<sub>2</sub> and CO in October 2001. SO<sub>2</sub> monitoring was also added to the Bridal Shop site (30-111-0082) which has been monitoring only CO. At this time Billings has CO and SO<sub>2</sub> monitoring both downtown and in the west end.

## 2.2.2 AQCR 141 - CENTRAL MONTANA

### 2.2.2.1 CASCADE COUNTY

The SO<sub>2</sub> issue in the Great Falls area became apparent as the result of dispersion modeling performed in support of a permit application by Montana Refining. The Wire Mill Road site (30-013-2000) began reporting valid data on November 14, 1994. However, dispersion modeling conducted in 1999 determined the monitoring site should be lower and closer to the refinery. As a result of the modeling, a new site, Race Track (30-013-2001) was established and began reporting valid data on May 4, 2000.

### 2.2.3 AQCR 142 - SOUTHWESTERN MONTANA

#### 2.2.3.1 LEWIS & CLARK AND JEFFERSON COUNTIES

In East Helena, the industrial source of SO<sub>2</sub> is a primary lead smelter. The Helena Valley is a fairly wide valley (approximately 16 miles by 16 miles) and lies east of the Continental Divide. The valley is surrounded by mountains and experiences significant temperature inversions in the fall and winter months. East Helena is located at the southern end of the valley. Predominant wind directions are from the northwest through southwest.

Monitoring by ASARCO in the 1970's revealed exceedances of the SO<sub>2</sub> standard in the East Helena Area. At that time ASARCO operated six monitoring stations in the East Helena area.

From 1974-1982, the Department operated three SO<sub>2</sub> sites adjacent to ASARCO's sites. After the acid plant was installed and the new blast furnace baghouse stack was built, ambient concentrations dropped dramatically and the State discontinued their sites. In 1991, ASARCO operated six SO<sub>2</sub> monitoring stations in the East Helena area including Kennedy Park (30-049-0703), East Station (30-049-0711), Kleffner Road (30-049-0701), Water Tank (30-049-0702), Microwave Tower (30-043-0903), and Ash Grove Siding (30-043-0908).

In 1992, dispersion modeling performed as part of the SIP revisions indicated that potentially high ambient SO<sub>2</sub> levels were occurring in the elevated terrain to the southwest and southeast of the smelter, in Jefferson County. As a result of the modeling, the ambient SO<sub>2</sub> monitoring network was significantly revised in the spring of 1993, and consisted of thirteen SO<sub>2</sub> sites.

On June 30, 1997, monitoring was discontinued at Ash Grove Siding (30-043-0908), Kleffner Road (30-049-0701), Top of Microwave Hill (30-043-0909), McClellan Creek Road #3 (30-043-0910), McClellan Creek Road #5

(30-043-0912), McClellan Creek Road #7 (30-043-0914), McClellan Creek Road #8 (30-043-0915), and McClellan Creek Road #9 (30-043-0916). Following these changes the ASARCO SO<sub>2</sub> Network consisted of five active sites including Microwave (30-043-0903), Water Tank (30-049-0702), Kennedy Park (30-049-0703), McClellan Creek Road #4 (30-043-0911), and McClellan Creek Road #6 (30-043-0913). This reconfigured network was adequately distributed to show attainment and maintenance of the NAAQS and MAAQS.

In April of 2001 the ASARCO smelter was shut down for an indeterminate period removing any significant SO<sub>2</sub> source in the Helena Valley. SO<sub>2</sub> monitoring was suspended when the smelter stopped operation.

#### 2.2.4 AQCR 143 - EASTERN MONTANA

##### 2.2.4.1 ROSEBUD COUNTY

The sulfur dioxide issue in Rosebud County centers on Montana Power Company's (MPC) four coal-fired power generating plants in Colstrip. The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions, but generally receives good airflow and is usually well ventilated.

The company maintains an ambient network around the facility and supports a tribal air monitoring program on the Northern Cheyenne reservation. The tribal network consists of three sites: Morning Star (30-087-0760), Garfield Peak (30-087-0761), and Badger Peak (30-087-0762). MPC operates three SO<sub>2</sub> sites. These are at MPC #1 (30-087-0701), MPC #2 (30-087-0702), and MPC #3 (30-087-0700). MPC #4 (30-087-0704) was shut down on June 30, 1992 and the termination was approved in an EPA letter dated April 3, 1992.

#### 2.3 LEAD AREAS

##### 2.3.1 AQCR 142 - SOUTHWESTERN MONTANA

##### 2.3.1.1 LEWIS & CLARK COUNTY

Lead is a pollutant of concern in East Helena where the primary source is the ASARCO lead smelter. After promulgation of ambient air quality standards for lead, the East Helena area violated the lead standard based on ambient monitoring.

Recent TSP/Pb network modifications include the following: the Microwave (30-043-0903) TSP/Pb background site was shut down on June 30, 1991; and

the Hadfield site (30-049-0719) was shut down on April 1, 1993, with the equipment moved to the current Prickly Pear site (30-049-0727). Prickly Pear is a site located directly north of the ASARCO smelter, across U.S. Highway 12, west of Prickly Pear Creek on Pacific Street. This site is near the modeled maximum Pb concentration site (modeling conducted with the assumption that all the SIP control strategies have been implemented). Prickly Pear started data collection as a collocated site in November 1993. In 1998, Prickly Pear recorded quarterly averages of  $0.9 \text{ :g/m}^3$  for all four quarters, the largest values of the ASARCO monitoring network. The Prickly Pear Pb site became a NAMS site July 1, 1999.

On July 1, 1995, cadmium, arsenic, zinc, copper, nickel, and chromium analysis began on the filters collected at Firehall. At the start of 1999, the monitoring network consisted of the following four sites: Firehall (30-049-0714), Dartman Field (30-049-0724), Old Railroad (30-049-0726), and Prickly Pear Creek (30-049-0727). Dartman Field was lost to development and reclamation on October 5, 1999, and in response, Pb sampling was added to Kennedy Park (30-049-0703) about 200 meters to the west in September 1999. Prickly Pear consistently measured higher Pb values than the near by Firehall and Kennedy Park sites, so at the end of December 2000 the network of TSP/Pb samplers was reduced to Prickly Pear and Old Railroad. These sites operated through the end of 2001. Following the suspension of smelting, lead values dropped precipitously and no longer warranted monitoring.

## 2.4 CARBON MONOXIDE AREAS

Carbon monoxide is a pollutant of concern in the larger communities in Montana. The Department, in cooperation with county air pollution agencies, monitors for CO in Butte, Billings, Great Falls, Kalispell, and Missoula. Also, a CO monitor is stationed at the West Yellowstone entrance to Yellowstone National Park. Most high concentrations occur in wintertime months due to stagnant weather conditions, cold temperatures, and poor fuel combustion from the various sources. As part of the network review process, the Department has looked at other communities where CO may be a problem. Descriptions of carbon monoxide monitored sites and potential monitored areas are discussed in the following sections.

### 2.4.1 AQCR 140 - SOUTH CENTRAL MONTANA

#### 2.4.1.1 YELLOWSTONE COUNTY

In Yellowstone County, the city of Billings is situated along the Yellowstone River Valley, which runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. Located both to the north

and south of the river are cliffs or rimrocks that cause channeling. The distance between rims is about one mile wide where the downtown area is located.

In 1978, the Billings downtown area was designated nonattainment for CO due to high readings at the 27th & Montana monitoring site (30-111-0053). Data collected at the Metra Parking Lot site (30-111-0061), during the two years following the modifications to Main Street (1985-86), indicated compliance with the NAAQS and the Department submitted a redesignation request.

EPA informed the Department that a maximum concentration microscale site needed to be established and that all locations needed to show maintenance and attainment of the NAAQS in order to process the redesignation request. Attempts to locate a new EPA-approved site followed a somewhat convoluted path. EPA wanted a site just north of the 4th Avenue entrance to the Metra Parking Lot. Permission could not be obtained primarily due to traffic and safety concerns. A site was temporarily located near the Main Street-6th Avenue North intersection (30-111-0074), but soon after it started operation, water pipes and valves were unearthed below the monitoring shelter. It was decided that this site was impractical considering future access to the water valves.

After a lengthy approval process, EPA granted permission to locate a microscale CO monitor just south of the 4th Avenue North entrance to the Metra Parking Lot (30-111-0075). Carbon monoxide data was collected from October 1988 to November 1992 and did not record any exceedances of the MAAQS or NAAQS.

In order to show attainment and maintenance of the standard at all locations, the Yellowstone County Air Pollution Control conducted CO grab sampling studies during the winters of 1988-89 and 1989-90, and a CO saturation study in December 1991. The last study identified three maximum CO concentration areas: 1) the west side along 24th Street West; 2) the downtown business district along North 27th Street; and 3) Grand Avenue and 15th Street. As a result of the EPA approved saturation study the Department and the Yellowstone County Air Pollution Control program installed two new CO monitoring sites in Billings during the fall of 1992 and terminated the Metra CO monitoring site (30-111-0075).

The west side site, Mount Olive (30-111-0079) was located on 24th Street West just north of Central Avenue. It began operation in November 1992 after approval by EPA in a letter dated February 5, 1993. The Mount Olive site was discontinued July 1, 1997 due to low readings. It was reopened in

October 2001 to track the CO trend in the growing, west end. The downtown site, Diamond Parking Lot (30-111-0078), was located on North 27th Street, between 3rd & 4th Avenues. It also began operation in November 1992 and was approved by EPA in a letter dated April 2, 1993. The Diamond Parking Lot site was discontinued on April 8, 1994, and the Norwest site (30-111-0081) was established, across 27th Street and one block south, in the same area. Following EPA approval, data collection started at the Norwest site on April 25, 1994.

In 1995, a consortium of Billings industries started a site at Senior High School (30-111-2008) with CO, SO<sub>2</sub> and meteorological monitoring. The Senior High site was discontinued on July 1, 1997 due to low ambient readings.

The latest site, Bridal Shop (30-111-0082) was installed on Grand Avenue near the intersection of Grand Avenue and Division and valid data collection began on December 11, 1997. Termination of the Norwest site occurred in July 1999, because the nearby Bridal Shop site had superior air flow and was recording higher 8-hour averages.

## 2.4.2 AQCR 141 - CENTRAL MONTANA

### 2.4.2.1 CASCADE COUNTY

In Great Falls, a corridor along 10th Avenue South was designated nonattainment for CO in September 1980 due to high readings at the Midas Muffler site (30-013-0015) located at 10th Avenue South and 9th Street. This site ran from 1977 until 1979 when a leasing problem forced the State to relocate the monitor about twelve blocks east to the Great Falls Federal site (30-013-0021). This site operated until 1983 when the monitoring trailer was again moved to the Pardis Clinic site (30-013-1023). The Pardis site was located one block west and across the street from the original Midas Muffler site. The Department anticipated higher concentrations at this site because it was located at a lower elevation and the traffic volume on this section of 10th Avenue South was higher.

Sampling at the Pardis Clinic site began in November 1983 and was established as a middle scale site. In May 1987, and again in August 1987, EPA informed the State that "in order to determine whether an area is attaining the NAAQS, a control agency must locate at least one monitoring station in the area of maximum concentration." EPA interprets such a location for CO to be a microscale site. On November 4, 1987, the Department moved the probe to be within microscale siting. The site remained microscale until November 16, 1988, when the site was moved



back to middle scale at the landowner's request.

Carbon monoxide data collected at the Pardis Clinic site showed a few exceedances of the 8-hour standard from 1986-88. A review of the exceedances showed that most occurred in the evening hours with light to calm winds. In 1983, a staff review of data showed that area-wide sources could be contributing to the elevated readings.

Since microscale siting at the Pardis Clinic could not be continued, the Department moved the CO trailer about a block west on 10th Avenue South at the Skyway Conoco site (30-013-1025) on November 9, 1989. EPA approved this site modification request in a letter dated November 2, 1989. This microscale site operated through June 2001.

The Department and Cascade County conducted a saturation study in January 1992 to determine a maximum concentration CO site in Great Falls. The results from this study were generally inconclusive. Although, there was one location a few blocks east of the existing Skyway Conoco site that had slightly higher CO concentrations, the differences in the concentrations were statistically insignificant. Most of the concentrations recorded during the study were low due to windy conditions that resulted in excellent atmospheric ventilation. The dispersion conditions during the study are typical of those in Great Falls most of the year.

In 1999, the highest 1-hour concentration was 7.8 ppm, and the highest 8-hour concentration was 3.6 ppm. Reconstruction of 10th Avenue South was completed in June of 2000, and improved traffic flow. Traffic counts and intersection “wait times” indicated that maximum concentrations probably occurred near the 2<sup>nd</sup> st. and 10<sup>th</sup> ave. intersection. DEQ moved the Skyway Conoco site in July 2001 to escape its existing siting problems and monitor this new projected “hot spot”. The first year of data from the new Overlook Park site (30-013-0001) was so similar to the previous location that it was within the realm of climatic variation.

## 2.4.3 AQCR 142 - SOUTHWESTERN MONTANA

### 2.4.3.1 GALLATIN COUNTY

West Yellowstone, located at the southern end of Gallatin County, represents a main artery to Yellowstone National Park. In 1998, the West entrance accounted for 38% or 1.2 million of the total 3.1 million annual visitors to the park. West Yellowstone, at an elevation of 6,666 feet, is located in a circular topographic depression known as a caldera. The entrance area and highway

corridor into the park are relatively flat, rimmed with 30-40 foot lodge pole pines, and the Madison River flows nearby.

In October of 1998, the Department installed a microscale carbon monoxide special purpose monitoring station on the northeast side of the park entrance (30-031-0013). The major monitoring emphasis at startup was mobile emissions from snowmobiles during the winter months; however, the station is in operation year round. January 1999 summary statistics presented a total of 19,639 snowmobiles entered the park, of which 13,794 or 70% entered through the West entrance. The west entrance counted 46,800 snowmobiles entering the park during the 2001-2002 winter, indicating a substantial growth in traffic.

To date, no exceedances of the 1-hour and 8-hour NAAQS or MAAQS have been recorded at the station. The highest 1-hour reading observed is 18.2 ppm making it appear unlikely that the 1-hour standards will be exceeded. The situation with regard to the 8-hour standard is not so encouraging. The highest 8-hour average measured is 8.9 ppm which is definitely pushing the 9.0 ppm NAAQS. It is entirely likely that the 8-hour standard will be exceeded under high traffic conditions with very poor dispersion.

In the northern end of Gallatin County lies the Gallatin valley, home to the cities of Bozeman and Belgrade. The Gallatin valley, and the area around Bozeman in particular, has been experiencing explosive growth over the last 10 years. According to the 2000 census, Gallatin County grew 34% from 1990 to 2000. Bozeman (population of 27,509), located at the eastern edge of the valley, houses the main campus of Montana State University (12,000 students). The Department recognizes the need for a winter-time CO saturation study in Bozeman during an inversion.

#### 2.4.3.2 SILVER BOW COUNTY

Butte has an urban population of approximately 34,000 persons. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually calm and the area is susceptible to severe temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit. The new part of town is built on the "flats" to the south where much of the strip development is located. Harrison Avenue is a street that links uptown with the flats. Interstate 90 is a major east/west highway that slices through the lower part of town with off-ramps to Harrison Avenue.

In 1978-79, the Department operated a site at Hebgen Park (30-093-0018) and the highest 8-hour concentration recorded was 7.8 ppm. In 1987-88, a

SPM site for CO was operated on Continental Drive (30-093-0022) near the main entrance to the Berkeley Pit and within a few blocks of the Department's PM<sub>10</sub> site at Greeley School (30-093-0005). The highest 8-hour reading was 9.1 ppm. Neither site was considered a maximum concentration site for CO.

The Department conducted a CO saturation study in Butte for about two weeks in mid-December 1995. The study showed the highest CO concentrations on Harrison Avenue near the Interstate. The Department has established a CO monitoring site, Storm Sewer (30-093-0053), at the probable high concentration location at the intersection of Dewey and Harrison Avenue. Valid data collection began November 7, 1997. The Department feels this monitor is adequately stationed to record maximum CO concentrations in the Butte area, and there are no plans for an additional monitor.

#### 2.4.4 AQCR 144 - NORTHWESTERN MONTANA

##### 2.4.4.1 FLATHEAD COUNTY

Kalispell has a population of approximately 14,223 persons although the majority of the 74,471 county residents live within a 15-mile radius of the city. Kalispell serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the continental divide and is a fairly wide (14 miles across) valley. The climate is mild with calm or low wind speeds. Like many communities in the western part of the State, the area is susceptible to temperature inversions in the fall and winter. Two major highways serve Kalispell; Highway 2, an east/west route, and Highway 93, a north/south route. These two highways meet at a stoplight in Kalispell at Main Street (Highway 93) and Idaho Avenue (Highway 2). The queuing time for this intersection can be lengthy, allowing motor vehicles to idle for extended periods, emitting large quantities of CO.

Residential wood combustion in Kalispell is common as much of the community has easy access to wood from local forests. The CO emitted by traffic at the Main Street-Idaho Avenue intersection combined with the area-wide contribution from wood stoves has the potential to create elevated concentrations of CO.

The Department conducted a CO saturation study in Kalispell from December 16, 1994, to January 2, 1995. In part because of the saturation study results a CO monitoring site (30-029-0045) was established near the intersection of Idaho and Main in Kalispell with data collection beginning on October 31, 1995. Two exceedances (a violation) of the 8-hr CO NAAQS

were recorded at the Idaho and Main site in January 1996. In 1999, the highest 1-hour concentration was 9.1 ppm, and the highest 8-hour concentration was 5.3 ppm. Reconstruction of the intersection to improve traffic flow and reduce queuing time forced the Department to remove the Idaho and Main site March 31, 2000.

A second CO site, Laser School (30-029-0046), was established in Kalispell with data collection beginning November 1, 1996. Laser School was sited as neighborhood scale to help define the extent of the CO problem in Kalispell. The Laser School site was terminated June 20, 1999 because of air flow issues created by three large Fir trees. A new site, Flathead Electric (30-029-0097), was established three blocks to the south on June 24, 1999. The Flathead Electric site is designed to meet the neighborhood scale siting criteria, and again is planned to assist in defining the geographic extent of the CO problem in Kalispell. In 1999 the Flathead Electric site measured a maximum 1-hour concentration of 4.8 ppm and an 8-hour concentration of 2.2 ppm.

The 1994 CO saturation study in Kalispell identified a second possible problem area as the intersection of Idaho and LaSalle. This is where the main east-west road through Kalispell, Idaho Street (Highway 2), turns into LaSalle (Highway 2) and heads toward Glacier National Park. The equipment from the Idaho and Main site was moved to a location about 100 yards west of this intersection and reborn as the Shopko site (30-029-0048) with data collection starting April 4, 2000. The Department chose to evaluate this intersection while the Idaho and Main intersection was under construction. After two winters of monitoring CO, the Shopko site does not appear to be appreciably different from the Idaho and Main site. The Department decided to collect at least one more year of data before evaluating the effect of redesigning the Idaho and Main intersection.

#### 2.4.4.2 MISSOULA COUNTY

Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers in western Montana. The city has a population of approximately 51,000 persons. The Missoula Valley is fairly narrow (approximately 6 miles across) and similar to other western Montana valleys because it is susceptible to temperature inversions in the fall and winter months. Wind speeds are calm or low throughout much of the year and allow pollutants to accumulate.

The city of Missoula was designated nonattainment for CO based on high concentrations recorded at the intersection of Brooks (U.S. 93), Russell, and South streets. This intersection and the monitoring site are known as Malfunction Junction (30-063-0005). Exceedances of the 8-hour CO standard have also been observed at other air monitoring sites in Missoula: Boyd Park

(30-063-0024), in the downtown area on Higgins Avenue (30-063-0023), and Lions Park (30-063-0019).

The Malfunction Junction site was temporarily shut down in July 1983 and reactivated in January 1986 after the completion of the reconstruction. The CO data collected from 1986 to 1992 showed some exceedances of the 8-hour CO standard.

A second CO site in Missoula operated at Boyd Park in the southern part of the city operated from August 1981 to March 1991. It was suspected that most emissions measured at this site were from residential wood combustion although CO from traffic may also have contributed. In May 1991, the Department made a request to EPA to permanently shut down the site. The site had not measured an 8-hour CO exceedance since 1987 and the site was in the same general area as the maximum concentration site Malfunction Junction.

EPA responded to the Department's request in a letter dated August 8, 1991. They disapproved of the proposal to permanently shut down the Boyd Park CO site. EPA needed additional documentation that Malfunction Junction is the maximum CO location and a second CO monitoring site in Missoula was not necessary (e.g., that Malfunction Junction can adequately address all contributing sources to the CO problem in Missoula, whether they are mobile, point or area sources). The Department provided EPA with additional justification in a letter dated September 16, 1991. EPA agreed to the Boyd Park shut down request in a letter dated October 4, 1991.

During December 1992, the Department and Missoula County conducted a CO saturation study in Missoula. The final report was submitted to EPA on April 20, 1993. EPA's response, in a letter dated May 24, 1993, states, "We agree, the study confirms the Malfunction Junction intersection has the highest carbon monoxide levels in the Missoula area and the existing monitoring station know as "Malfunction Junction" is the maximum concentration monitoring station."

The Department has no plans for a second CO monitoring site in Missoula and intends to operate only the Malfunction Junction site for maintenance purposes. There have been no measured exceedances in Missoula since the implementation of the oxygenated fuels program in October 1992. The station currently operates first and fourth quarters, and is offline second and third quarters.

## 2.5 NITROGEN DIOXIDE AREAS

As mentioned in Section 1.2.5, nitrogen dioxide is not a pollutant of major concern in Montana. There are, however, two areas in the State where NO<sub>2</sub> was recently monitored by companies as a permit condition. These areas are in Colstrip and Missoula.

## 2.5.1 AQCR 143 - EASTERN MONTANA

### 2.5.1.1 ROSEBUD COUNTY

The nitrogen dioxide issue in Rosebud County centers on Montana Power Company's four coal-fired power generating plants in Colstrip. The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions, but generally receives good airflow and is usually well ventilated.

The company maintained an ambient network for NO<sub>2</sub> around the facility through 2001, and continues to support a tribal air monitoring program on the Northern Cheyenne reservation. Nearly twenty years of data collection around the facility never revealed significant NO<sub>2</sub> in the area. The facility clearly had no local NO<sub>2</sub> impact, so monitoring was terminated in 2001.

## 2.5.2 AQCR 144 - NORTHWESTERN MONTANA

### 2.5.2.1 MISSOULA COUNTY

Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers. The Missoula urban area is home to nearly 62,000 persons. The Missoula Valley is similar to other western Montana valleys in that it is susceptible to temperature inversions in the fall and winter months.

The nitrogen dioxide issue in Missoula County centers on the Smurfit-Stone Container (Stone) kraft pulp mill near Frenchtown. In May 1987, the company received a PSD permit to burn coke in a lime kiln. As a permit condition, Stone Container was required to operate one NO<sub>2</sub> monitoring site near their facility. The data collected and submitted to the State by Stone showed very low concentrations with no violations of the NAAQS or MAAQS. The NO<sub>2</sub> monitoring was discontinued at Stone's request on June 1, 1992 due to low ambient concentrations. Monitoring will resume when another lime kiln is converted to burn coke.

Recently proposed changes at the Louisiana –Pacific facility are expected to increase NO<sub>2</sub> emissions and have forced the company to do background monitoring in the Frenchtown area. Monitoring for ozone and nitrogen oxides started January 2001. This background information is expected to support permit decisions in the Missoula Valley for the near future.

## 2.6 OZONE AREAS

Ozone (O<sub>3</sub>) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, O<sub>3</sub> is not emitted directly into the atmosphere, but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NO<sub>x</sub>), and solar radiation. Both VOC and NO<sub>x</sub> are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in O<sub>3</sub> production, O<sub>3</sub> concentrations peak in the summer months.

Ozone has been monitored in Billings, Great Falls, Butte, Colstrip, Glacier National Park, and Missoula by several different organizations. Much of the data collected in the 1970's is not credible due to the older style analyzers used and poor quality assurance.

### 2.6.1 AQCR 140 - SOUTH CENTRAL MONTANA

#### 2.6.1.1 YELLOWSTONE COUNTY

Billings is in an area where sources emit fairly large quantities of VOC and NO<sub>x</sub>. Billings is also an area where hot summer days may promote photochemical reactions. EPA defines the ozone monitoring season for Montana as June 1 to September 30.

The Department first monitored for ozone in Billings at the 27th and Montana monitoring site (30-111-0053) from September 1975 to July 1978. Several hourly concentrations exceeded the MAAQS, but none exceeded the NAAQS.

The Department conducted ozone monitoring in Billings from July 1978 to August 1980 at the Central Park monitoring site (30-111-0059). A couple hourly concentrations exceeded the MAAQS, but none exceeded the NAAQS.

The Department conducted ozone monitoring in Billings in the city center from January 1988 to September 1989 at the Scottish Rites monitoring site (30-111-0073). Ozone data collected at the Scottish Rites site showed higher concentrations in the summer months, but all were within the NAAQS. One hourly concentration exceeded the MAAQS. The Scottish Rites site (which also monitored for SO<sub>2</sub>) was discontinued in September 1989 because the ozone readings were low. Since the Scottish Rites site was discontinued, the Department has not conducted ozone monitoring. If resources become available, the Department would like to conduct ozone monitoring east of Billings.

## 2.6.2 AQCR 141 - CENTRAL MONTANA

### 2.6.2.1 CASCADE COUNTY

Montana Power Company conducted ozone monitoring in Great Falls from June 1980 to October 1981. The site (30-013-0302) was located just north of Great Falls and one mile west of Belt Creek. Three hourly concentrations exceeded the NAAQS.

## 2.6.3 AQCR 142 - SOUTHWESTERN MONTANA

### 2.6.3.1 SILVER BOW COUNTY

The Department conducted ozone monitoring in Butte at the Alpine West monitoring site (30-093-0015) during the summer and fall 1977. Many exceedances of the NAAQS (one-hour concentrations) were recorded.

The Department conducted ozone monitoring in Butte at the Hebgen Park #2 monitoring site (30-093-0018) from May 1978, to April 1981. No exceedances of the MAAQS or NAAQS were recorded.

## 2.6.4 AQCR 143 - EASTERN MONTANA COUNTY

### 2.6.4.1 ROSEBUD COUNTY

The Department conducted ozone monitoring in Colstrip at the BN monitoring site (30-087-0027) from 1975 through 1977. Also, the Department conducted ozone monitoring in Colstrip at the McRae monitoring site (30-087-0028) in 1974 and 1975. Many exceedances of the NAAQS (one-hour concentrations) were recorded at the BN site, while no exceedances of the NAAQS or MAAQS were recorded at the McRae monitor.

## 2.6.5 AQCR 144 - NORTHWESTERN MONTANA

### 2.6.5.1 FLATHEAD COUNTY

The National Park Service is conducting non-EPA Federal ozone monitoring in Glacier National Park (30-029-8001). Ozone monitoring was from April 1989 to December 1992 and March 1995 to the present. No exceedances of



the MAAQS or NAAQS have been recorded.

#### 2.6.5.2 MISSOULA COUNTY

The Department conducted ozone monitoring in Missoula at the Lions Park monitoring site (30-063-0019) in 1978 and 1979. No exceedances of the MAAQS or NAAQS were recorded. If resources become available the Department would like to establish ozone monitoring in the Missoula area.

### 2.7 METEOROLOGICAL MONITORING AREAS

#### 2.7.1 AQCR 140 - SOUTH CENTRAL MONTANA

AQCR 140 is located in south central Montana and includes physical features common to all of the other AQCRs in the State. The Yellowstone and Musselshell Rivers cut through the region from west to east and the Missouri River forms the northern border. The Highwood, Big Belt, Crazy, and Absaroka Mountains border the region to the west. The southern border of the region includes the Beartooth, Pryor, and Big Horn Mountains. To the east the boundary cuts through rolling plains and foothills, and includes the lower portion of the Musselshell River.

Due to the diverse nature of the terrain and climate in this region, dispersion characteristics are variable. Mountainous terrain can provide shelter from prevailing winds and severely limit dispersion of pollutants in one area while funneling high winds into another to greatly enhance the dispersion. Temperature inversions, which trap pollutants, are common in this region throughout the year, but the depth, duration and intensity vary widely from the mountains to the plains. Inversions on the plains seldom persist past noon, and are usually shallow and weak. Inversions in the mountainous areas are usually much stronger and deeper, and can persist for several days during the fall and winter. Low-level wind speed and direction patterns in the mountains are affected by terrain and generalizations or comparisons to any existing measurements at other sites are not very practical. Wind patterns on the flatter portion of the region can be evaluated by comparison to existing sites and generally show the prevailing winds to be from the west and southwest.

##### 2.7.1.1 YELLOWSTONE COUNTY

Meteorological monitoring in Yellowstone County consists of two sites operated by the Department, one site operated by the Yellowstone County Air Pollution Control (YCAPC), two sites operated by Yellowstone Generation Inc. (YGI), and three sites operated by a group of Billings/Laurel industries (BLAQTC).

As stated previously, Billings and Laurel are situated along the Yellowstone River Valley in south central Montana. The Yellowstone River Valley runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, there are cliffs or rimrocks located both north and south of the river, which also tend to cause channeling. The distance between the north and south rims of the cliffs range from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel and all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smokestacks.

The Department operates a 10-meter meteorological (met) tower at Coburn Road (30-111-0066). Temperature data (two meter probe height) is also collected at the site. The Coburn Road site is situated about 300 feet above the valley floor on the south rims. The wind data is used to determine which source or sources contributed to SO<sub>2</sub> readings at the site. The wind data was also used in connection with the area wide SO<sub>2</sub> dispersion modeling study.

At Lower Coburn Road (30-111-0083), the Department operates meteorological sensors utilizing a Climatronics sonic wind system. Due to the nearness of the Coburn Road site, the Department did not install a 10 meter tower and instead mounted the wind system on a six foot tripod on top of the station. Collected wind data is not intended for modeling purposes; however, the meteorological data is used to identify which sources are contributing to SO<sub>2</sub> readings at the site.

The YCAPC operates a met sensor at the Bridal Shop CO site (30-111-0082). The met sensor is on a six-foot tripod on top of the monitoring shelter. The site does not meet siting criteria for probe height, but the met data is used for reviewing the meteorological conditions contributing to high CO readings.

BLAQTC operates meteorological systems at its three SO<sub>2</sub> sites in Billings and Laurel. These sites are Brickyard Lane (30-111-2005), Laurel Farm (30-111-0016) and Lockwood Park (30-111-1065). All meteorological equipment is located on 10-meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contribute to SO<sub>2</sub> readings at the site. The wind data was used in the area wide SO<sub>2</sub> dispersion modeling study.

YGI operates meteorological systems at both of its SO<sub>2</sub> sites in Billings. These sites are Johnson Lane (30-111-2006) and Pine Hills (30-111-2007). All meteorological equipment is located on 10-meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contributed to

SO<sub>2</sub> readings at the site.

## 2.7.2 AQCR 141 - CENTRAL MONTANA

AQCR 141, located in north central Montana, is a region of rolling glaciated plains. The Marias, Milk, Missouri, and Teton Rivers cut across the region from the west to east creating substantial river valleys that are hundreds of feet lower than the upland bench areas. Relatively small, isolated mountain ranges, the Bear Paw, Highwood, and Little Rocky Mountains, rise up from the plains in the eastern half of the region. The western boundary of the region is formed by the Continental Divide and includes most of the area known as the Rocky Mountain Front. The foothills of the Big and Little Belt Mountains form the southern boundary along with the Missouri River. The eastern boundary cuts across the plains north of the Little Rocky Mountains to the Canadian border, which is the northern boundary of the region.

With the exception of the isolated mountainous areas most of the region experiences a similar climatological regime with warm dry summers and cold dry winters interrupted by occasional chinooks. Dispersion potential in the region is generally excellent due to persistent and often very strong winds. Temperature inversions in the area, though frequent, are usually shallow and seldom last past noon. The exceptions to this rule are to be found in the mountainous areas and occasionally in the river valleys. During the winter it is possible to have a warm wind blowing along a bench while cold air remains trapped in the bottom of a valley only a few miles away. Persistent inversions have also been noted in the narrow valleys of the Little Rocky Mountains. The wind flow over the region is generally from the west or southwest unless cold northerly winds are sweeping down from the arctic. Precipitation amounts are uniformly low over the entire region.

### 2.7.2.1 CASCADE COUNTY

Meteorological monitoring in Cascade County consists of the Race Track site (30-013-2001) located east of the Montana Refining facility in Great Falls. The Race Track site met sensors are on a 10-meter tower. The wind data analog signal is digitized and stored on magnetic media. The met data is used to review the meteorological conditions contributing to high SO<sub>2</sub> readings.

Meteorological monitoring was conducted at the Skyway Conoco site (30-013-1025) from 1989 to 1995. The Skyway Conoco site met monitoring was discontinued October 20, 1995 due to the placement of a large sign near the site, which affected airflow.

## 2.7.3 AQCR 142 - SOUTHWESTERN MONTANA

AQCR 142 is located in the southwestern corner of Montana. The region contains

several distinct mountain ranges separated by wide valleys. The valleys run north and south and can be thousands of feet lower than the surrounding mountains. Tributaries for the Clark Fork, Missouri, and Yellowstone Rivers have their headwaters in this area.

The mountainous terrain in the region substantially impacts the weather patterns. Precipitation is often limited to the higher mountains while the valleys remain arid and relatively dry. Winds along the mountaintops are generally westerly and frequently will not reach down into the north-south running valleys. Inversions are frequent and during the fall and winter can persist for days at a time. Occasional severe inversions can be several thousands of feet deep and very strong allowing almost no dispersion of pollutants. This allows even small emission sources to produce localized areas of poor air quality.

#### 2.7.3.1 GALLATIN COUNTY

Meteorological monitoring in Gallatin County consists of a Climatronics sonic wind system at the West Yellowstone CO station located at the entrance to Yellowstone National Park. The wind system is mounted on a six foot tripod on top of the monitoring shelter. Collected data is not used for regulatory modeling, as it does not meet siting requirements. However, the meteorological data is used to review atmospheric conditions that prevail during elevated CO concentrations recorded at the site.

#### 2.7.3.2 LEWIS & CLARK COUNTY

Meteorological monitoring in Lewis & Clark County was conducted at six sites operated by ASARCO in East Helena. ASARCO's original met sites in East Helena were located at the Firehall (30-049-0714), Kennedy Park (30-049-0703), Old Railroad (30-049-0726), and Zinc Stack (30-049-0721). Meteorological sensors on the zinc stack were located at mid-stack level and at stack top. All other meteorological sites were located at 10-meter towers (except Firehall, which was at 12 meters,) and conformed to EPA siting criteria. All four meteorological sites began operation on December 1, 1989. Data collected from these sites was used in connection with the East Helena Lead and SO<sub>2</sub> SIPs. The meteorological data was used as input to dispersion models to assess impacts from the smelter and to address control strategies. As part of the SO<sub>2</sub> SIP revisions ASARCO added two new met sites, which utilized 10-meter towers and met all siting requirements. Data collection at the McClellan Creek Road #5 (30-043-0912) and Top of Microwave (30-043-0909) sites started on April 1, 1993. Met data collection was terminated June 30, 1997, at Firehall, Kennedy Park, McClellan Creek #5, Top of Microwave, and Zinc Stack. McClellan Creek #5 meteorological sensors

were moved to McClellan Creek #4, and data collection began on October 1, 1997. ASARCO currently operates two meteorological sites at Old Railroad and McClellan Creek #4.

#### 2.7.4 AQCR 143 - EASTERN MONTANA

AQCR 143 is basically the eastern third of Montana. Rolling glaciated plains cover the northern half of the region while rolling sedimentary plains cover the southern half. The Missouri River cuts from west to east in a deep valley in the glaciated northern half of the region while the Yellowstone River travels to the northeast in a wide, but shallow valley through the southern half. The terrain is often quite rough, but generally does not produce noticeable terrain effects on the meteorology and climatology of this region.

The weather is typical of the northern Great Plains with hot dry summers and cold dry winters. Chinooks occur, but are not as frequent as they are in AQCR 141. Precipitation totals are generally low throughout the region with thunderstorms producing a significant amount of the total precipitation. The wind patterns here can be characterized by existing off-site measurements and are usually westerly. Dispersion in this region is excellent as a rule. Shallow and short-lived inversions are frequent especially in the southern part of the region.

##### 2.7.4.1 ROSEBUD COUNTY

Meteorological monitoring in Rosebud County centers on Montana Power Company's coal-fired power plants in Colstrip. MPC operates two meteorological sites. These are at MPC #1 (30-087-0701) and MPC #2 (30-087-0702). Meteorological monitoring was discontinued at MPC #3 (30-087-0700) on June 30, 1992. MPC Sites #1 and #2 are located adjacent to MPC's SO<sub>2</sub> and NO<sub>2</sub> continuous monitoring sites. The data is used to review meteorological conditions that may contribute to elevated readings.

#### 2.7.5 AQCR 144 - NORTHWESTERN MONTANA

AQCR 144 makes up the northwestern corner of Montana and is entirely west of the Continental Divide. The terrain here is uniformly mountainous, as is AQCR 142, but the valleys are generally narrower and lower than the valleys within AQCR 142. The mountain ranges and valleys also run from the north to the south with the mountaintops thousands of feet higher than the valley floors. The area is drained by the Clark Fork and Kootenai Rivers and includes all of the Flathead and Bitterroot drainage.

The strong Pacific influence and mountainous terrain in the region substantially impact the weather. Precipitation amounts here are the highest in the State and the winters are also warmer and wetter. Winds along the mountaintops are generally westerly and frequently will not reach down into the north-south valleys. Inversions are frequent, and during the fall and winter can persist for many days. Warm Pacific air frequently overrides colder air trapped in the valleys producing severe inversions several thousands of feet deep causing poor pollutant dispersion. This allows small emission sources to produce localized areas of poor air quality because dispersion potential in this region is the lowest in the State.

#### 2.7.5.1 MISSOULA COUNTY

Meteorological monitoring in Missoula was conducted at the Missoula City-County Health Department's CO site at Malfunction Junction (30-063-0005). The meteorological sensors were on a six-foot tripod on top of the monitoring shelter.

Due to the multiple use conditions at the fairgrounds (where the site was located) and safety reasons, it was impossible to install and guy a 10-meter tower at this site. The Department and Missoula County decided to stop met data collection on April 1, 1993, since the data collected with the tripod could not be used for dispersion modeling purposes. The absence of met data at the Malfunction Junction site is not a serious problem since nearly all of the CO NAAQS exceedances in Missoula have occurred under stagnant air conditions.

As part of the hydrogen sulfide (H<sub>2</sub>S) at Smurfit-Stone Container meteorological data is collected at the Moccasin Lane site, Stone Container #1A (30-063-0034). The meteorological site utilizes a 10-meter tower and meets all EPA siting requirements.

#### 2.7.5.2 FLATHEAD COUNTY

Meteorological monitoring in Kalispell is conducted at the Shopko CO site (30-029-0048). The meteorological sensors are on a six-foot tripod on top of the monitoring shelter. Data collection began April 1, 2000. Meteorological monitoring is being conducted to provide local met data to characterize the prevailing meteorological conditions during high carbon monoxide concentration episodes.

### 3.0 NETWORK MODIFICATIONS

As stated in the introduction, the Department must conduct a review to (1) determine if the system (monitoring network) meets the monitoring objectives defined in Appendix D of CFR Part 58, and (2) identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations which are necessary.

The Department is also required to develop and implement an annual schedule modifying the network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

The regional office of the EPA (Region VIII) established a form and a procedure for documenting and requesting modifications to the network. This form is known as the Network Modification Request Form. The State is required to submit this form in advance requesting EPA approval of any proposed network modification.

Proposed (and accomplished) network modifications for Fiscal Year 2001 (FY01) are listed in Table 8, of Appendix A. Network modifications proposed for Fiscal Year 2002 (FY02) are listed in Table 9, of Appendix A.

#### 4.0 AIR MONITORING EQUIPMENT STATUS

The Department operates various types of equipment to measure pollutants and meteorological parameters at monitoring sites across Montana. The Department also uses shelters, calibrators, other equipment, and devices in support of that monitoring. As the equipment becomes old, it often needs to be upgraded or replaced. When the Department adds sites to its network, new equipment must be purchased. Each year the Department earmarks money to purchase new and replacement equipment.

During Fiscal Year 2002 (FY02) the Department purchased several pieces of equipment. These are listed in Table 5 of Appendix A. In Fiscal Year 2002, the Department spent a total of \$69,500 on major air monitoring equipment purchases.

In Fiscal Year 2002 (FY02) the Department intends to spend approximately \$40,000 for new or replacement equipment (dependant on funding). Table 6 of Appendix A contains a list of the proposed purchases.

Table 7 of Appendix A, is a list of the age of air monitoring equipment that is currently used at State and county operated sites, or will be used at proposed sites. This table also includes equipment used or needed for special projects.

The Department remains committed to upgrading its system, maintaining a high level of equipment dependability, and achieving a high level of data quality and quantity (percent data recovery) by using the best available equipment.



## 5.0 SUMMARY

### 5.1 CURRENT NETWORK SUMMARY

Each year the Department is required to develop and implement an annual schedule modifying its air monitoring network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

Table 1 of Appendix A provides a narrative of any changes or modifications to air monitoring stations operated by State and county governments that occurred during Fiscal Year 2001-2002 or are proposed for Fiscal Year 2003. Table 2 of Appendix A provides a listing of current air monitoring stations operated by State and county governments. There are also several sites in these tables that are operated by industry. Company monitors listed in this report are those that reflect significant population exposure.

At the time of this network review, the Department, county agencies, and industrial concerns operated 37 air monitoring stations. Some of the stations collected multiple parameters. There were 23 PM<sub>10</sub>, 12 PM<sub>2.5</sub>, 7 CO, 12 SO<sub>2</sub>, and 3 NO<sub>2</sub> sites as found in Table 2 of Appendix A.

#### 5.1.1 NETWORK MODIFICATIONS FOR FISCAL YEAR 2001

For Fiscal Year 2002, the Department listed 15 modifications to the network as outlined in Table 8 of Appendix A. A status statement is written below each of the items in the table. We did not perform the hoped for CO saturation studys in Bozeman, or Helena. We are also still looking for another site in Gallatin County.

#### 5.1.2 NETWORK MODIFICATION GOALS FOR FISCAL YEAR 2002

Table 9 of Appendix A lists the network modification goals for Fiscal Year 2002. The items on this list detail the proposed modifications to the network.

## 5.2 HISTORICAL MONITORING NETWORK SUMMARY

Appendix B contains a nearly complete listing of all the official sites (e.g. data entry to AIRS) with the monitored parameters that have been established in Montana. The list includes industrial and State sites with the start-up and closing dates. The re-engineering of the AIRS database has made this information much more difficult to extract than it was previously. It may not be possible to continue this table in the future.

## **APPENDIX A - TABLES FOR NETWORK REVIEW**

Table 1	MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY01-02) AND PROPOSED (FY03) MODIFICATIONS WITH LIST OF PARAMETERS
Table 2	EXISTING MONTANA AMBIENT AIR MONITORING NETWORK WITH LIST OF PARAMETERS
Table 3	2002 PM <sub>10</sub> SAMPLING FREQUENCY WAIVER REQUEST
Table 4	PM <sub>10</sub> AND TSP/Pb NETWORK SAMPLING FREQUENCY
Table 5	MONTANA MAJOR EQUIPMENT PURCHASES FOR FY02
Table 6	MONTANA MAJOR PLANNED EQUIPEMENT PURCHASES FOR FY03
Table 7	AGE OF EQUIPMENT
Table 8	MONTANA NETWORK MODIFICATIONS FOR FY02
Table 9	MONTANA NETWORK MODIFICATION GOALS FOR FY03

**TABLE 1**

**MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY01-02) AND PROPOSED (FY03)  
MODIFICATIONS WITH LIST OF PARAMETERS**

<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>Year of Record</b>	<b>Station Type</b>	<b>Spatial Scale</b>	<b>Monitoring Objective*</b>
<b>* H=high concentration, P=high population, S=source impact, B=background</b>						
<b>30-013-0001</b>	<b>Overlook Park Great Falls/Cascade</b>	<b>CO</b>	<b>01</b>	<b>SLAMS</b>	<b>Micro.</b>	<b>H,P,S</b>
This site at the intersection of 2 <sup>nd</sup> street and 10 <sup>th</sup> ave. south replaced the Skyway Conoco site in 2001. Reconstruction of 10 <sup>th</sup> ave. improved traffic flow to the east reducing CO levels at the old site.						
<b>30-013-1025</b>	<b>Skyway Conoco Great Falls/Cascade</b>	<b>CO</b>	<b>89-01</b>	<b>SLAMS</b>	<b>Micro.</b>	<b>H,P,S</b>
This site began measuring CO in 1989. Congestion in the area of the Mall at 10st. and 10 <sup>th</sup> ave. had produced exceedances in the past. More recently, lease issues and reconstruction of 10 <sup>th</sup> ave. made this site less desirable. It was closed in 2001.						
<b>30-029-0007</b>	<b>Ball Park Columbia Falls/Flathead</b>	<b>PM<sub>10</sub></b>	<b>01-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P,S</b>
This site was created in response to blowing bark dust associated with the operation at Great Northern Bark located across the railroad tracks to the north. The measured values have been consistently higher than at the Junior High School site, and this site will replace Junior High School site at the end of 2001.						
<b>30-029-0009</b>	<b>Dead End Whitefish/Flathead</b>	<b>PM<sub>10</sub></b> <b>PM<sub>2.5</sub></b>	<b>01-</b> <b>01-</b>	<b>SLAMS</b> <b>SLAMS</b>	<b>Neigh.</b> <b>Neigh.</b>	<b>H, P</b> <b>H, P</b>
The Dead End site replaced the Markus Foods site. It is just off US 93 on the south side of the Whitefish River. Sampling began in October of 2001. The site has a TEOM continuous PM <sub>10</sub> monitor and two BGI PM <sub>2.5</sub> samplers.						

**TABLE 1 (continued)**

**MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY01-02) AND PROPOSED (FY03)  
MODIFICATIONS WITH LIST OF PARAMETERS**

AIRS Number	Site Name/Address City/County	Parameter	Year of Record	Station Type	Spatial Scale	Monitoring Objective*
* H=high concentration, P=high population, S=source impact, B=background						
30-029-0039	Markus Foods	PM <sub>10</sub>	91-01	SLAMS	Neigh.	H,P
	Whitefish/Flathead	PM <sub>2.5</sub>	99-01	SLAMS	Neigh.	H,P
The Markus Foods PM <sub>10</sub> site, started on April 30, 1991, and is located in the Whitefish central business district. Numerous exceedances have been measured at the site. Whitefish was officially designated a non-attainment area in October 1993.						
The Markus Foods site supports two Sierra Anderson SA-321B PM <sub>10</sub> samplers. In 1995, a TEOM continuous PM <sub>10</sub> monitor was installed and linked to the DEQ via modem for data recovery and equipment monitoring. PM <sub>2.5</sub> monitoring began January 1999 using two BGI, PQ-200 samplers. This site was collocated for PM <sub>10</sub> beginning in January 2000 to compensate for closing the collocated site at Evergreen Fire Station.						
Structural changes at Markus Foods forced closure in March 2001.						
30-029-0045	Idaho and Main Kalispell/Flathead	CO	95-00	SLAMS	Micro.	H,P,S
This CO site is located near the intersection of U.S. Highway 93 and U.S. Highway 2 (Idaho Ave & Main St). Valid data collection began in October 1995. Two exceedances (8-hr NAAQS) were recorded in January 1996. A meteorological monitoring system was added to the site in April 1996, and consisted of wind speed, wind direction, and standard deviation of wind direction data. In an effort to expedite traffic movement and reduce emissions, the intersection is being reconstructed. The site was terminated and moved in April 2000 for at least the duration of the construction activity.						
30-029-0047	Flathead Electric Kalispell/Flathead	CO	99-	SPM	Neigh.	P
		PM <sub>10</sub>	99-	SLAMS	Neigh.	H,P
		PM <sub>2.5</sub>	99-	SLAMS	Neigh.	H,P
This site is located near the intersection of East Center Street and Woodland Avenue, and is a consolidation of continuous and daily samplers, from the Laser School (CO), Universal Athletics (TEOM), and Evergreen (PM <sub>2.5</sub> ) stations. Data collection began in June 1999.						
30-029-0048	Shopko Kalispell/Flathead	CO	00-	SPM	Micro.	H,P,S

The Shopko site was established in April 2000 near the intersection of Idaho and Lasalle. It is about 100 yards west of the intersection in front of the Shopko store. This is anticipated to be one of the worst CO locations in Kalispell. It will operate for at least three winters.

<b>30-029-1015</b>	<b>Universal Athletics Kalispell/Flathead</b>	<b>PM<sub>10</sub></b>	<b>85-01</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
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PM<sub>10</sub> sampling began in April 1987 and has continued since. A TEOM was installed in 1995 but removed in June of 1999 because of air flow and security problems at this site. Data collected during 2000 was compared with Flathead Electric TEOM data. The Flathead Electric site appears to adequately represent the same air mass. Universal Athletics was closed at the end of June 2001.

<b>30-049-00XX</b>	<b>XXXXXXXXXX Lincoln/Lewis &amp; Clark</b>	<b>PM<sub>2.5</sub></b>	<b>03-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
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Lincoln's particulate problems are related to smoke accumulation during winter inversions. This new site is being created to address those issues.

<b>30-049-0025</b>	<b>1<sup>st</sup> Bank Lincoln/Lewis &amp; Clark</b>	<b>PM<sub>10</sub> PM<sub>2.5</sub></b>	<b>98-02 01-02</b>	<b>SPM SPM</b>	<b>Neigh. Neigh.</b>	<b>P P</b>
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This site has problems that came with the need to measure dust. Comparison of fine and coarse particulate, along with the seasonality of high values has made it clear that only PM<sub>2.5</sub> needs monitoring. A new site with superior air flow will be established during the summer of 2002.

<b>30-049-0024</b>	<b>Rossiter School Helena/Lewis &amp; Clark</b>	<b>PM<sub>10</sub></b>	<b>96-02</b>	<b>SPM</b>	<b>Neigh.</b>	<b>P</b>
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Problems with servicing this roof -top site have lead to it's closure. The samplers are being relocated to a ground level site a short distance away.

<b>30-049-0703</b>	<b>Kennedy Park East Helena/Lewis &amp; Clark</b>	<b>SO<sub>2</sub> TSP Pb</b>	<b>74-01 99-00 99-00</b>	<b>SPM SPM SPM</b>	<b>Neigh. Neigh. Neigh.</b>	<b>H,S H,S H,S</b>
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This site is operated by ASARCO and is part of their network around their primary lead smelter. EPA approved this site as a special purpose monitor (SPM) in an undated letter (received January 14, 1991).

TSP and Pb were added to this site in September of 1999 when development and reclamation forced closure of the Dartman Field site about 200 yards to the east. Three Pb monitors in a small area made it unnecessary. Measured values were lower than Prickly Pear so Pb

## MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY01-02) AND PROPOSED (FY03) MODIFICATIONS WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter	Year of Record	Station Type	Spatial Scale	Monitoring Objective*
	<p>* H=high concentration, P=high population, S=source impact, B=background</p> <p>monitoring was discontinued at the end of 2000.</p> <p>With the temporary closure of the ASARCO smelter in the spring of 2001, there was no significant SO<sub>2</sub> production in the area, so the SO<sub>2</sub> monitor was terminated and the site was closed until resumption of operations at the smelter.</p>					
30-049-0714	Firehall East Helena/Lewis & Clark	TSP Pb	81-00 81-00	SLAMS SLAMS	Neigh. Neigh.	H,P,S H,P,S
	<p>Firehall has recorded Pb concentrations exceeding the NAAQS numerous times. The Prickly Pear site (30-049-0727), which is two blocks to the east, is the modeled high concentration Pb site (after all SIP control measures are implemented). In addition to the current Pb analysis other metals (Copper, Arsenic, Cadmium, Chromium, Nickel, and Zinc) are measured from filters collected at this site starting July 1, 1995.</p> <p>Firehall had consistently shown lower Pb values than the nearby Prickly Pear site and was closed at the end of 2000</p>					
30-049-0724	Dartman Field East Helena/Lewis & Clark	TSP Pb	83-99 83-99	SLAMS SLAMS	Neigh. Neigh.	H,S H,S
	<p>This site has been operated as a TSP/Pb site since 1983. There have been some exceedances of the Pb standard at this site, but overall Pb concentrations are lower than those measured at sites in downtown East Helena.</p> <p>Dartman Field was terminated in August 1999 when the topsoil was removed from the site and a subdivision was started.</p>					
30-049-0727	Prickly Pear Creek East Helena/Lewis and Clark	TSP Pb Pb	93- 93- 99-	SLAMS SLAMS NAMS	Neigh. Neigh. Neigh.	H,P,S H,P,S H,P,S
	<p>This site is located at the modeled maximum Pb concentration, and is directly north of the ASARCO smelter on the north side of Highway 12 next to Prickly Pear Creek. The site became a lead NAMS site in September 1999. Following the suspension of operation at the ASARCO smelter, Pb levels dropped to almost nothing and monitoring was terminated in December 2001.</p>					

<b>30-049-0726</b>	<b>Old Railroad</b>	<b>TSP</b>	<b>89-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>H,S</b>
	<b>East Helena/Lewis &amp; Clark</b>	<b>Pb</b>	<b>89-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,S</b>

This alternate wind direction site monitored lead from the ASARCO smelter. It operated from 1989 until December 2001. Like the other lead sites in East Helena monitoring was terminated after values fell to low levels following the suspension of smelting.

<b>30-053-0018</b>	<b>Courthouse Annex</b>	<b>PM<sub>10</sub></b>	<b>93-</b>	<b>SLAMS</b>	<b>Neigh</b>	<b>H,P</b>
	<b>Libby/Lincoln</b>	<b>PM<sub>2.5</sub></b>	<b>99-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>

A continuous PM<sub>10</sub> sampler (TEOM) replaced the nephelometer at this site in October 1993. The TEOM is used for the local mandatory residential wood burning curtailment program. PM<sub>2.5</sub> monitoring was added in January 1999, and collocation of the PM<sub>2.5</sub> monitoring began in September 1999. PM<sub>2.5</sub> speciation began in February 2002 and is expected to continue through March 2003. To resolve disparities between TEOM PM<sub>10</sub> measurements and PM<sub>2.5</sub> measurements, a LowVolume PM<sub>10</sub> sampler will be operated from October 2002 through March 2003.

<b>30-063-0024</b>	<b>Boyd Park</b>	<b>PM<sub>10</sub></b>	<b>84-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
	<b>Missoula/Missoula</b>	<b>PM<sub>2.5</sub></b>	<b>99-02</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>

Due to results very similar to those at the Health Department site, PM<sub>2.5</sub> monitoring was terminated in April 2002. The speciation monitor and the TEOM moved to the Health Department. PM<sub>10</sub> monitoring continues with a BGI LowVolume sampler operating 1 in 6.

<b>30-063-0031</b>	<b>Health Department Roof</b>	<b>PM<sub>10</sub></b>	<b>86-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
	<b>Missoula/Missoula</b>	<b>PM<sub>2.5</sub></b>	<b>99-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>H,P</b>

This site is in the downtown central business district and is considered a maximum concentration site for this part of Missoula. PM<sub>10</sub> sampling was initiated in September 1986, and became continuous in April 2002 when the TEOM was moved from the Boyd Park site. PM<sub>2.5</sub> sampling began in February 1999. In April 2002 the site was collocated for PM<sub>2.5</sub> and Speciation was added.

<b>30-063-0012</b>	<b>Lion's Park</b>	<b>PM<sub>2.5</sub></b>	<b>02-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>P</b>
	<b>Bonner/Missoula</b>					

This site was installed to monitor fine particulate on the up-slope side of Hell Gate from Missoula.



**TABLE 1 (continued)**

**MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY01-02) AND PROPOSED (FY03)  
MODIFICATIONS WITH LIST OF PARAMETERS**

<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>Year of Record</b>	<b>Station Type</b>	<b>Spatial Scale</b>	<b>Monitoring Objective*</b>
* H=high concentration, P=high population, S=source impact, B=background						
<b>30-081-0003</b>	<b>Ranger Station Stevensville/Ravalli</b>	<b>PM<sub>10</sub></b>	<b>94-01</b>	<b>SPM</b>	<b>Neigh.</b>	<b>P</b>
	Construction of a large, new building forced relocation of the monitoring site.					
<b>30-081-0006</b>	<b>USFS Stevensville/Ravalli</b>	<b>PM<sub>10</sub></b>	<b>01-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>P</b>
	Replaced the old Ranger Station site. Relocated about 100 yards.					
<b>30-111-0080</b>	<b>Sacrifice Cliff Billings/Yellowstone</b>	<b>SO<sub>2</sub></b>	<b>93-01</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,S</b>
	As a result of two dispersion-modeling studies conducted in the Billings area in 1991, and 1992, the Department installed an SO <sub>2</sub> monitor at the modeled maximum SO <sub>2</sub> "hot-spot." The Sacrifice Cliff site was approved by EPA effective May 19, 1993 and started data collection at that time. This site has never measured an exceedance and the high values recorded have declined with reduced emissions from the source. A review of the site's utility led to a decision to close it in June 2001.					
<b>30-111-0082</b>	<b>Bridal Shop Billings/Yellowstone</b>	<b>CO SO<sub>2</sub></b>	<b>97- 01-</b>	<b>SPM SPM</b>	<b>Micro. Neigh.</b>	<b>H,P,S H,P</b>
	The Bridal Shop site replaced the Norwest Bank site as the maximum CO site in the downtown Billings area in 1997. Sulfur dioxide monitoring was added in 2002 to evaluate SO <sub>2</sub> exposure in downtown Billings.					
<b>30-111-0083</b>	<b>Lower Coburn Road Billings/Yellowstone</b>	<b>SO<sub>2</sub></b>	<b>99-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,S</b>
	Dispersion models have suggested that this site may see relatively moderately high concentrations with high frequency. This site is proposed to encounter the annual average maximum. The station began operation in August 1999.					

**30-111-1079**

**Mount Olive  
Billings/Yellowstone**

**CO  
SO<sub>2</sub>**

**01-  
01-**

**SLAMS  
SLAMS**

**Micro.  
Neigh.**

**H,P,S  
H,P**

This site previously closed in 1997, was reopened in response to continued growth on the west side of Billings. It monitors CO at what is probably the busiest intersection in the city and provides an indication of SO<sub>2</sub> exposure on the west side of the city.

30-089-0007	Thompson Falls High School Thompson Falls/Sanders <b>SLAMS / PM<sub>10</sub></b>	1-in-3	1-in-6	No Change
30-093-0005	Greeley School Butte/Silver Bow <b>SLAMS / PM<sub>10</sub></b>		TEOM	No Change
30-111-1065	Lockwood Park Billings/Yellowstone <b>SPM / PM<sub>10</sub></b>		1-in-6	No Change

\* - Site has collocated sampler operating on a 1-in-6 schedule.

<sup>++</sup> - Site has TEOM in operation as well as manual sampler.

**TABLE 2**  
**EXISTING MONTANA AMBIENT AIR MONITORING NETWORK**  
**WITH LIST OF PARAMETERS**

<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>Year of Record</b>	<b>Station Type</b>	<b>Spatial Scale</b>	<b>Monitoring Objective*</b>
<b>* H=high concentration, P=high population, S=source impact, B=background</b>						
<b>30-013-0001</b>	<b>Overlook Park Great Falls/Cascade</b>	<b>CO</b>	<b>01-</b>	<b>SLAMS</b>	<b>Micro.</b>	<b>H,P,S</b>
<b>30-013-1026</b>	<b>Great Falls High School Great Falls/Cascade</b>	<b>PM<sub>2.5</sub></b>	<b>00-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
<b>30-029-0003</b>	<b>Columbia. Falls Junior High Columbia Falls/Flathead</b>	<b>PM<sub>10</sub></b>	<b>85-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
<b>30-029-0009</b>	<b>Dead End Whitefish/Flathead</b>	<b>PM<sub>10</sub></b>	<b>01-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
		<b>PM<sub>2.5</sub></b>	<b>01-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,</b>
<b>30-029-0007</b>	<b>Ball Park Columbia Falls/Flathead</b>	<b>PM<sub>10</sub></b>	<b>01-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P,S</b>
<b>30-029-0047</b>	<b>Flathead Electric Kalispell/Flathead</b>	<b>CO</b>	<b>99-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>P</b>
		<b>PM<sub>10</sub></b>	<b>99-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
		<b>PM<sub>2.5</sub></b>	<b>99-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
<b>30-029-0048</b>	<b>Shopko Kalispell/Flathead</b>	<b>CO</b>	<b>00-</b>	<b>SPM</b>	<b>Micro.</b>	<b>H,P,S</b>
<b>30-031-0002</b>	<b>East Main City Bldg. Bozeman/Gallatin</b>	<b>PM<sub>10</sub></b>	<b>85-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
<b>30-031-0008</b>	<b>Belgrade ConAgra Belgrade/Gallatin</b>	<b>PM<sub>10</sub></b>	<b>91-</b>	<b>SLAMS</b>	<b>Neigh.</b>	<b>H,P</b>
		<b>PM<sub>2.5</sub></b>	<b>00-</b>	<b>SPM</b>	<b>Neigh.</b>	<b>H,P</b>

**TABLE 2 (continued)**

**EXISTING MONTANA AMBIENT AIR MONITORING NETWORK  
WITH LIST OF PARAMETERS**

<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>Year of Record</b>	<b>Station Type</b>	<b>Spatial Scale</b>	<b>Monitoring Objective*</b>
<ul style="list-style-type: none"> <li>• H=high concentration, P=high population, S=source impact, B=background</li> </ul>						
30-031-0012	Firehole West Yellowstone/Gallatin	PM <sub>10</sub>	95-	SPM	Neigh.	H,P
30-031-0013	West Entrance – Park West Yellowstone/Gallatin	CO	98-	SPM	Micro.	H,S
30-049-0018	Lincoln School Helena/Lewis & Clark	PM <sub>10</sub>	91-	SLAMS	Neigh.	H,P
		PM <sub>2.5</sub>	99-	SLAMS	Neigh.	H,P
30-049-0024	Rossiter School Helena/Lewis & Clark	PM <sub>10</sub>	96-	SPM	Neigh.	P
30-049-0025	Lincoln 1 <sup>st</sup> Bank Lincoln/Lewis & Clark	PM <sub>10</sub>	98-	SPM	Neigh.	P
		PM <sub>2.5</sub>	01-	SPM	Neigh.	P
30-053-0018	Courthouse Annex Libby/Lincoln	PM <sub>10</sub>	93-	SLAMS	Neigh	H,P
		PM <sub>2.5</sub>	99-	SLAMS	Neigh	H,P
30-063-0005	Malfunction Junction Missoula/Missoula	CO	79-	SLAMS	Neigh.	H,P,S
30-063-0016	Stone #2 Missoula/Missoula	PM <sub>10</sub>	92-	SPM	Neigh.	S
30-063-0024	Boyd Park Missoula/Missoula	PM <sub>10</sub>	84-	SLAMS	Neigh.	H,P

30-063-0031	Health Department Roof Missoula/Missoula	PM <sub>10</sub> PM <sub>2.5</sub>	86- 99-	SLAMS SPM	Neigh. Neigh.	H,P H,P
30-063-0034	Stone #1A Missoula/Missoula	PM <sub>10</sub>	92-	SPM	Neigh.	S
30-081-0001	Hamilton Courthouse Hamilton/Ravalli	PM <sub>10</sub> PM <sub>2.5</sub>	99- 00-	SLAMS SLAMS	Neigh. Neigh.	H,P H,P
30-081-0006	Stevensville Ranger Station Stevensville/Ravalli	PM <sub>10</sub>	01-	SPM	Neigh.	P
30-087-0700	MPC #3 Colstrip/Rosebud	SO <sub>2</sub> NO <sub>2</sub> PM <sub>10</sub>	82-02 82-02 89-02	SPM SPM SPM	Neigh. Neigh. Neigh.	H,P H,S H,P
30-087-0701	MPC #1 Colstrip/Rosebud	PM <sub>10</sub> SO <sub>2</sub> NO <sub>2</sub>	92-02 81-02 81-02	SPM SPM SPM	Neigh. Neigh. Neigh.	H,S H,S H,S
30-087-0702	MPC #2 Colstrip/Rosebud	PM <sub>10</sub> SO <sub>2</sub> NO <sub>2</sub>	92-95 81-02 81-02	SPM SPM SPM	Neigh. Neigh. Neigh.	H,S H,S H,S
30-089-0007	Thompson Falls High School Thompson Falls/Sanders	PM <sub>10</sub> PM <sub>2.5</sub>	99- 00-	SLAMS SLAMS	Neigh. Neigh.	H,P H,P
30-093-0005	Greeley School Butte/Silver Bow	PM <sub>10</sub> PM <sub>2.5</sub>	85- 99-	SLAMS SLAMS	Neigh. Neigh.	H,P,S H,P
30-093-0053	Storm Sewer Butte/Silver Bow	CO	98-	SPM	Micro.	H,P,S
30-111-0016	Laurel Farm Laurel/Yellowstone	SO <sub>2</sub>	87-	SPM	Neigh.	H,S

**TABLE 2 (continued)**

**EXISTING MONTANA AMBIENT AIR MONITORING NETWORK  
WITH LIST OF PARAMETERS**

<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>Year of Record</b>	<b>Station Type</b>	<b>Spatial Scale</b>	<b>Monitoring Objective*</b>
<ul style="list-style-type: none"> <li>• H=high concentration, P=high population, S=source impact, B=background</li> </ul>						
30-111-0066	Coburn Road Billings/Yellowstone	SO <sub>2</sub>	81-	SLAMS	Neigh.	H,S
30-111-0079	Mount Olive Billings/Yellowstone	CO	01-	SLAMS	Micro.	H,P,S
		SO <sub>2</sub>	01-	SLAMS	Neigh.	P
30-111-0082	Bridal Shop Billings/Yellowstone	CO	98-	SPM	Micro.	H,P,S
		SO <sub>2</sub>	01-	SPM	Neigh.	P
30-111-0083	Lower Coburn Road Billings/Yellowstone	SO <sub>2</sub>	99-	SLAMS	Neigh.	H,S
30-111-1065	Lockwood Park Billings/Yellowstone	SO <sub>2</sub>	87-	SPM	Neigh.	H,P,S
		PM <sub>10</sub>	96-	SPM	Neigh.	H,P
		PM <sub>2.5</sub>	99-	SLAMS	Neigh.	H,P
30-111-2005	Brickyard Lane Billings/Yellowstone	SO <sub>2</sub>	89-	SPM	Neigh.	H,P,S
30-111-2006	Johnson Lane Billings/Yellowstone	SO <sub>2</sub>	93-	SPM	Neigh.	H,P,S
30-111-2007	Pine Hills Billings/Yellowstone	SO <sub>2</sub>	93-	SPM	Neigh.	H,P,S

**TABLE 3**  
**2002 PM<sub>10</sub> SAMPLING FREQUENCY WAIVER STATISTICS**

<b>AIRS Number</b>	<b>Site Name/Address City/County Station Type</b>	<b>Sample Year</b>	<b># Of Valid Samples</b>	<b>99% Number</b>	<b>99% (ug/M3)</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b><i>t</i> – <i>stat</i> Value</b>
30-029-0003	Columbia Falls - Jr. High School <b>SLAMS</b>	1999	55	55	31	51	11.31	-9.222
		2000	49	49	47			
		2001	58	58	74			
30-031-0002	East Main City Building. Bozeman/Gallatin <b>SLAMS</b>	1999	90	90	50	49	3.536	-30.08
		2000	70	70	45			
		2001	63	63	51			
30-031-0008	Belgrade ConAgra Belgrade/Gallatin <b>SLAMS</b>	1999	105	104	61	67	2.828	-31.113
		2000	90	90	65			
		2001	85	85	75			
30-031-0012	Firehole West Yellowstone/Gallatin <b>SPM</b>	1999	99	99	61	58	10.61	-9.177
		2000	89	89	46			
		2001	87	87	66			
30-049-0024	Helena - Rossiter School Helena/Lewis & Clark <b>SPM</b>	1999	46	46	38	47	8.485	-12.77
		2000	54	54	50			
		2001	55	55	52			
30-049-0025	Lincoln 1 <sup>st</sup> Bank Lincoln/Lewis & Clark <b>SPM</b>	1999	59	59	130	87	50.02	<b>-1.348</b>
		2000	55	55	59			
		2001	50	50	73			
30-063-0024	Boyd Park Missoula/Missoula <b>SLAMS</b>	1999	287	285	43	48	12.86	-8.296
		2000	303	300	39			
		2001	365	362	63			
30-081-0001	Hamilton County Courthouse Hamilton/Ravalli <b>SLAMS</b>	1999	26	26	39	60	20.51	-4.617
		2000	75	75	68			
		2001	71	71	74			



TABLE 3 (Continued)

2002 PM<sub>10</sub> SAMPLING FREQUENCY WAIVER REQUEST

AIRS Number	Site Name/Address City/County Station Type	Sample Year	# Of Valid Samples	99% Number	99% (ug/M3)	Mean	Standard Deviation	<i>t – stat</i> Value
30-089-0007	Thompson Falls High School	1999	43	43	26	52	38.18	-2.689
	Thompson Falls/Sanders	2000	91	91	80			
	<b>SLAMS</b>	2001	77	77	51			
30-111-1065	Lockwood Park	1999	99	99	62	46	13.44	-8.138
	Billings/Yellowstone	2000	89	89	43			
	<b>SPM</b>	2001	57	57	32			

**TABLE 4**  
**PM<sub>10</sub> NETWORK SAMPLING FREQUENCIES**

AIRS Number	Site Name/Address City/County Station Type/Parameter	Current		Proposed	
		1 <sup>ST</sup> /4 <sup>TH</sup> Quarters	2 <sup>nd</sup> /3 <sup>rd</sup> Quarters	1 <sup>ST</sup> /4 <sup>TH</sup> Quarters	2 <sup>nd</sup> /3 <sup>rd</sup> Quarters
30-029-0003	Columbia Falls Jr. High School Columbia Falls/Flathead <b>SLAMS / PM<sub>10</sub></b>		1-in-6	No Change Will be terminated 12/31/02	
30-029-0007	Ball Park Columbia Falls/Flathead <b>SLAMS / PM<sub>10</sub></b>		1-in-3	No Change	
30-029-0009	Dead End Whitefish/Flathead <b>SLAMS / PM<sub>10</sub></b>		TEOM	No Change	
30-029-0047	Flathead Electric Coop. Kalispell/Flathead <b>SLAMS / PM<sub>10</sub></b>		TEOM	No Change	
30-031-0002	East Main City Building. Bozeman/Gallatin <b>SLAMS / PM<sub>10</sub></b>	1-in-3	1-in-6	No Change	
30-031-0008	Belgrade ConAgra Belgrade/Gallatin <b>SLAMS / PM<sub>10</sub>*</b>	1-in-3	1-in-6	No Change	
30-031-0012	Firehole West Yellowstone/Gallatin <b>SPM / PM<sub>10</sub></b>	1-in-3	1-in-6	No Change	

\* - Site has collocated sampler operating on a 1-in-6 schedule.

++ - Site has TEOM in operation as well as manual sampler.

TABLE 4 (Continued)

PM<sub>10</sub> NETWORK SAMPLING FREQUENCIES

AIRS Number	Site Name/Address City/County Station Type/Parameter	Current		Proposed	
		1 <sup>ST</sup> /4 <sup>TH</sup> Quarters	2 <sup>nd</sup> /3 <sup>rd</sup> Quarters	1 <sup>ST</sup> /4 <sup>TH</sup> Quarters	2 <sup>nd</sup> /3 <sup>rd</sup> Quarters
30-049-0018	Lincoln School Helena/Lewis & Clark <b>SLAMS / PM<sub>10</sub><sup>++</sup></b>		TEOM and 1-in-6		No Change
30-049-0024	Helena – Rossiter School Helena/Lewis & Clark <b>SPM / PM<sub>10</sub></b>		1-in-6		No Change
30-049-0025	Lincoln 1st Bank Lincoln/Lewis & Clark <b>SPM / PM<sub>10</sub></b>		1-in-6	No Change Will be terminated 12/31/02	
30-053-0018	Courthouse Annex Libby/Lincoln <b>SLAMS / PM<sub>10</sub></b>		TEOM		No Change
30-063-0024	Boyd Park Missoula/Missoula <b>SLAMS / PM<sub>10</sub></b>		1-in-6		1 in 6
30-063-0031	Health Department Roof Missoula/Missoula <b>SPM / PM<sub>10</sub></b>		TEOM		No Change
30-081-0001	Hamilton County Courthouse Hamilton/Ravalli <b>SLAMS / PM<sub>10</sub></b>	1-in-3	1-in-6		No Change
30-081-0006	USFS Stevensville/Ravalli <b>SPM / PM<sub>10</sub></b>		TEOM		No Change

30-089-0007	Thompson Falls High School Thompson Falls/Sanders <b>SLAMS / PM<sub>10</sub></b>	1-in-3	1-in-6	No Change
30-093-0005	Greeley School Butte/Silver Bow <b>SLAMS / PM<sub>10</sub></b>		TEOM	No Change
30-111-1065	Lockwood Park Billings/Yellowstone <b>SPM / PM<sub>10</sub></b>		1-in-6	No Change

\* - Site has collocated sampler operating on a 1-in-6 schedule.

<sup>++</sup> - Site has TEOM in operation as well as manual sampler.

**TABLE 5****MONTANA MAJOR EQUIPMENT PURCHASES FOR FY02**

<b>Quantity</b>	<b>Item Description</b>	<b>Each (est)</b>	<b>Total (est)</b>
2	CO Analyzer	8,500	17,000
2	SO <sub>2</sub> Analyzer	9,500	18,000
4	PM <sub>2.5</sub> Samplers	7,500	30,000
1	Zero Air Source	4,500	4,500
<b>Total Equipment Purchases</b>			<b>\$69,500</b>

**TABLE 6****MONTANA MAJOR PLANNED EQUIPMENT PURCHASES FOR FY03**

<b>Quantity</b>	<b>Item Description</b>	<b>Each (est)</b>	<b>Total (est)</b>
7	ESC 8816 Data Loggers	5,500	38,500
1	Dilution Calibration System	11,000	11,000
<b>Total of Planned Equipment Purchases</b>			<b>\$49,500</b>

**TABLE 7**  
**AGE OF EQUIPMENT**

Equipment	Sites	Minimum Number Required	Comments	Year of Purchase									
				'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
CO Analyzers	8	9				5			2	1		1	2
SO <sub>2</sub> Analyzers	4	5							1	1	1	1	2
PM <sub>10</sub> Continuous	6	7		3	1	2						2	
PM <sub>10</sub> Hi-Vol	12	30	Two samplers required at most sites. 3 and 4 required at some collocated sites										
PM <sub>2.5</sub> Samplers	14	30	Two samplers at 6 sites. Three at one collocated site. One sampler at one site.						16	4	7		4
Wind Systems	7	8								2		6	
Dilution Calibrators	10	11	One required for audits.			4			2		1		
Strip Chart Recorders	17	17						1		3		5	
Dataloggers	15	16								5	6		
Shelters	14	14				3		1	2				

TABLE 8

## MONTANA NETWORK MODIFICATIONS FOR FY02

Rank	AIRS Number	Site Name/Address City/County	Parameter	*****Comments*****
1.	30-029-XXXX	XXXXXXXXXX Whitefish/Flathead	PM <sub>10</sub> PM <sub>2.5</sub>	Replace Markus Foods Site
	<b>STATUS:</b>	<b>Accomplished September 2001</b>		
2.	30-029-0007	Ball Park Columbia Falls/Flathead	PM <sub>10</sub>	New site in neighborhood being impacted by bark dust from Great Northern Bark.
	<b>STATUS:</b>	<b>Accomplished August 2001</b>		
3.	30-049-0025	1 <sup>st</sup> Bank Lincoln/Lewis & Clark	PM <sub>2.5</sub>	Collocate with PM <sub>10</sub> .
	<b>STATUS:</b>	<b>Accomplished June 2001</b>		
4.	30-053-0018	Courthouse Annex Libby/Lincoln	PM <sub>2.5</sub> Speciation	Add when equipment becomes available.
	<b>STATUS:</b>	<b>Accomplished February 2002</b>		



TABLE 8 (Continued)

## MONTANA NETWORK MODIFICATIONS FOR FY02

Rank	AIRS Number	Site Name/Address City/County	Parameter	*****Comments*****
5.	30-111-0082	Bridal Shop Billings/Yellowstone	SO <sub>2</sub>	Add.
	<b>STATUS:</b>	<b>Accomplished July 2001</b>		
6.	30-111-0080	Sacrifice Cliff Billings/Yellowstone	SO <sub>2</sub>	Terminate.
	<b>STATUS:</b>	<b>Accomplished June 2001</b>		
7.	30-111-0079	Mount Olive Lutheran Church Billings/Yellowstone	CO SO <sub>2</sub>	Resurrect. Monitor population exposure in western Billings.
	<b>STATUS:</b>	<b>Accomplished November 2001</b>		
8.	30-029-1015	Universal Athletic Kalispell/Flathead	PM <sub>10</sub>	Terminate.
	<b>STATUS:</b>	<b>Accomplished June 2001</b>		

- |     |                |   |                                       |   |
|-----|----------------|---|---------------------------------------|---|
| 9.  | 30-013-1025    | Skyway Conoco<br>Great Falls/Cascade                  | CO                                    | Move site to 2 <sup>nd</sup> St. and 10 <sup>th</sup> Ave.  |
|     | <b>STATUS:</b> | <b>Accomplished July 2001</b>                         |                                       |   |
|     |                |   |                                       |   |
| 10. | 30-063-0024    | Boyd Park<br>Missoula/Missoula                        | PM <sub>10</sub><br>PM <sub>2.5</sub> | Terminate PM <sub>2.5</sub> monitoring. Replace continuous PM <sub>10</sub> with manual sampling at six day intervals.  |
|     | <b>STATUS:</b> | <b>Accomplished April 2002</b>                        |                                       |   |
|     |                |   |                                       |   |
| 11. | 30-063-0031    | Health Department<br>Missoula/Missoula                | PM <sub>10</sub><br>PM <sub>2.5</sub> | Replace manual PM <sub>10</sub> sampler with continuous monitor. Colocate PM <sub>2.5</sub> sampler and add speciation. |
|     | <b>STATUS:</b> | <b>Accomplished April 2002</b>                        |                                       |   |
|     |                |   |                                       |   |
| 12. | 30-063-XXXX    | Bonner Area<br>Bonner/Missoula                        | PM <sub>2.5</sub>                     | Short term study of fine particulate levels in the Clark Fork Valley upstream of Missoula and Hell Gate.                |
|     | <b>STATUS:</b> | <b>Accomplished June 2002</b>                         |                                       |   |
|     |                |   |                                       |   |
| 13. | 30-031-XXXX    | Belgrade<br>Belgrade/Gallatin                         | PM <sub>2.5</sub>                     | Find and evaluate a fine particulate site in the Gallatin River Valley closer to Bozeman than the Conagra site.         |
|     | <b>STATUS:</b> | <b>Working with Gallatin County Health Department</b> |                                       |   |

TABLE 8 (Continued)

## MONTANA NETWORK MODIFICATIONS FOR FY02

Rank	AIRS Number	Site Name/Address City/County	Parameter	*****Comments*****
14.	30-049-XXXX	Helena/Lewis and Clark  <b>STATUS: Not Accomplished Inadequate Resources</b>	CO	Conduct a CO saturation study to identify maximum concentration area and determine need for monitoring.
15.	30-031-XXXX	Bozeman/Gallatin  <b>STATUS: Not Accomplished Inadequate Resources</b>	CO	Conduct a CO saturation study to identify maximum concentration area and determine need for monitoring.

**TABLE 9**

**MONTANA NETWORK MODIFICATION GOALS FOR FY03**

<b>Rank</b>	<b>AIRS Number</b>	<b>Site Name/Address City/County</b>	<b>Parameter</b>	<b>*****Comments*****</b>
1.	30-049-0024	Rossiter School Helena/Lewis & Clark	PM <sub>10</sub>	Relocate a short distance to get off the roof and down to a more easily serviced site.
2.	30-049-0025	First Bank Lincoln/Lewis & Clark	PM <sub>10</sub> PM <sub>2.5</sub>	Terminate at end of 2002, and replace with a new PM <sub>2.5</sub> site on public property in town of Lincoln.
3.	30-053-0018	Courthouse Annex Libby/Lincoln	PM <sub>10</sub>	Collocate TEOM with a BGI (LoVol) PM10 from Oct. through March.
4.	30-029-0003	Jr. High School Columbia Falls/Flathead	PM <sub>10</sub>	Terminate at end of 2002.
5.	30-063-XXXX	Bonner Area Bonner/Missoula	PM <sub>2.5</sub>	Short term study of fine particulate levels in the Clark Fork Valley upstream of Missoula and Hell Gate.
6.	30-031-XXXX	Belgrade Belgrade/Gallatin	PM <sub>2.5</sub>	Find and evaluate a fine particulate site in the Gallatin River Valley closer to Bozeman than the Conagra site.
7.	30-031-0013	West Entrance-Park West Yellowstone/Gallatin	CO	Identify a community exposure oriented site as a potential replacement for current site.
8.	30-049-XXXX	Helena/Lewis and Clark	CO	Conduct a CO saturation study to identify maximum concentration area and determine need for monitoring.

## **APPENDIX B - HISTORICAL MONITORING SUMMARY**

**TABLE 1 - HISTORICAL MONITORING SUMMARY**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
001	0001	SUSPENDED PARTICULAT	BEAVERHEAD CO COURTHOUSE ROOF,TENDOY ST	DILLON	BEAVERHEAD	198401	198612
001	0002	CADMIUM (TSP)	STEFANICH RANCH		BEAVERHEAD	197301	197312
001	0002	LEAD (TSP)	STEFANICH RANCH		BEAVERHEAD	197301	197312
001	0002	SUSPENDED PARTICULAT	STEFANICH RANCH		BEAVERHEAD	197301	197312
001	0002	ZINC (TSP)	STEFANICH RANCH		BEAVERHEAD	197301	197312
001	0006	SUSPENDED PARTICULAT	MONIOAR STAR ROUTE LIMA MT 59739		BEAVERHEAD	198101	198212
003	0001	BENZENE SOL ORG(TSP)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	HARDIN	BIG HORN	197201	197312
003	0001	CADMIUM (TSP)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	HARDIN	BIG HORN	197201	197312
003	0001	LEAD (TSP)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	HARDIN	BIG HORN	197201	197312
003	0001	SUSPENDED PARTICULAT	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	HARDIN	BIG HORN	197201	197312
003	0001	ZINC (TSP)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	HARDIN	BIG HORN	197201	197312
003	0008	CADMIUM (TSP)	CARLAT RANCH		BIG HORN	197201	197412
003	0008	LEAD (TSP)	CARLAT RANCH		BIG HORN	197201	197412
003	0008	SUSPENDED PARTICULAT	CARLAT RANCH		BIG HORN	197201	197412
003	0008	ZINC (TSP)	CARLAT RANCH		BIG HORN	197201	197412
003	0009	NITRATE (TSP)	THOMAS RANCH (MORTON RESIDENCE), DECKER		BIG HORN	197601	197712
003	0009	NITRATE (TSP)	THOMAS RANCH (MORTON RESIDENCE), DECKER		BIG HORN	197701	197712
003	0009	SULFATE (TSP)	THOMAS RANCH (MORTON RESIDENCE), DECKER		BIG HORN	197601	197712
003	0009	SUSPENDED PARTICULAT	THOMAS RANCH (MORTON RESIDENCE), DECKER		BIG HORN	197401	198112
003	0010	SUSPENDED PARTICULAT	WARREN RANCH, HARDIN MT		BIG HORN	197501	198012
003	0011	PM10 - LOCAL CONDITI	DECKER COAL #1 DECKER MT		BIG HORN	199801	
003	0011	PM10 TOTAL 0-10UM	DECKER COAL #1 DECKER MT		BIG HORN	199207	199712
003	0011	SUSPENDED PARTICULAT	DECKER COAL #1 DECKER MT		BIG HORN	197901	199206
003	0012	BAROMETRIC PRESSURE	DECKER COAL #2 DECKER MT		BIG HORN	198101	198112
003	0012	DEW POINT	DECKER COAL #2 DECKER MT		BIG HORN	198101	198212
003	0012	OUTDOOR TEMPERATURE	DECKER COAL #2 DECKER MT		BIG HORN	198101	199406
003	0012	RAIN/MELT PRECIP	DECKER COAL #2 DECKER MT		BIG HORN	198101	198512
003	0012	SUSPENDED PARTICULAT	DECKER COAL #2 DECKER MT		BIG HORN	197901	199104
003	0013	PM10 TOTAL 0-10UM	DECKER COAL #3 DECKER MT		BIG HORN	199206	199308
003	0013	SUSPENDED PARTICULAT	DECKER COAL #3 DECKER MT		BIG HORN	197901	199206
003	0014	PM10 - LOCAL CONDITI	DECKER COAL #4 DECKER MT		BIG HORN	199801	
003	0014	PM10 TOTAL 0-10UM	DECKER COAL #4 DECKER MT		BIG HORN	199206	199712
003	0014	SUSPENDED PARTICULAT	DECKER COAL #4 DECKER MT		BIG HORN	197901	199205
003	0015	SUSPENDED PARTICULAT	DECKER COAL #8, WIND STATION		BIG HORN	197901	198112
003	0015	WIND DIRECTION	DECKER COAL #8, WIND STATION		BIG HORN	198001	199406
003	0015	WIND SPEED	DECKER COAL #8, WIND STATION		BIG HORN	198001	199406
003	0016	SUSPENDED PARTICULAT	DECKER COAL #6 DECKER MT		BIG HORN	197901	198212
003	0016	SUSPENDED PARTICULAT	DECKER COAL #6 DECKER MT		BIG HORN	198201	198212
003	0016	SUSPENDED PARTICULAT	DECKER COAL #6 DECKER MT		BIG HORN	198201	198312
003	0017	PM10 - LOCAL CONDITI	DECKER COAL #7 DECKER MT		BIG HORN	199801	
003	0017	PM10 TOTAL 0-10UM	DECKER COAL #7 DECKER MT		BIG HORN	199207	199712

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
003	0017	SUSPENDED PARTICULAT	DECKER COAL #7 DECKER MT		BIG HORN	197901	199206
003	0018	OUTDOOR TEMPERATURE	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198201	
003	0018	PM10 - LOCAL CONDITI	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	199801	
003	0018	PM10 TOTAL 0-10UM	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	199206	199712
003	0018	RAIN/MELT PRECIP	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198501	198512
003	0018	STD DEV HZ WND DIR	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	199309	
003	0018	SUSPENDED PARTICULAT	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198201	199012
003	0018	SUSPENDED PARTICULAT	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198201	199206
003	0018	WIND DIRECTION	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198201	
003	0018	WIND SPEED	SPRING CREEK COAL, SITE #1, DECKER, MT		BIG HORN	198201	
003	0019	PM10 - LOCAL CONDITI	SPRING CREEK #2 DECKER MT		BIG HORN	199801	
003	0019	PM10 TOTAL 0-10UM	SPRING CREEK #2 DECKER MT		BIG HORN	199206	199712
003	0019	SUSPENDED PARTICULAT	SPRING CREEK #2 DECKER MT		BIG HORN	198201	199206
003	0020	PM10 - LOCAL CONDITI	SPRING CREEK #3 DECKER MT		BIG HORN	199801	
003	0020	PM10 TOTAL 0-10UM	SPRING CREEK #3 DECKER MT		BIG HORN	199206	199712
003	0020	SUSPENDED PARTICULAT	SPRING CREEK #3 DECKER MT		BIG HORN	198201	199206
003	0021	PM10 - LOCAL CONDITI	DECKER COAL #5, DECKER, MT		BIG HORN	199801	
003	0021	PM10 TOTAL 0-10UM	DECKER COAL #5, DECKER, MT		BIG HORN	199206	199712
003	0021	SUSPENDED PARTICULAT	DECKER COAL #5, DECKER, MT		BIG HORN	198201	198312
003	0021	SUSPENDED PARTICULAT	DECKER COAL #5, DECKER, MT		BIG HORN	198201	199012
003	0021	SUSPENDED PARTICULAT	DECKER COAL #5, DECKER, MT		BIG HORN	198301	199206
003	0022	PM10 - LOCAL CONDITI	NINER RANCH, NORTH DECKER MINE		BIG HORN	199801	
003	0022	PM10 TOTAL 0-10UM	NINER RANCH, NORTH DECKER MINE		BIG HORN	199309	199712
003	0025	OUTDOOR TEMPERATURE	WESTMORELAND,ABSALOKA MINE #2, HARDIN		BIG HORN	198104	198412
003	0025	SUSPENDED PARTICULAT	WESTMORELAND,ABSALOKA MINE #2, HARDIN		BIG HORN	198001	199109
003	0025	WIND DIRECTION	WESTMORELAND,ABSALOKA MINE #2, HARDIN		BIG HORN	198001	198412
003	0025	WIND SPEED	WESTMORELAND,ABSALOKA MINE #2, HARDIN		BIG HORN	198001	198412
003	0027	SUSPENDED PARTICULAT	WESTMORELAND,ABSALOKA MINE #3, HARDIN		BIG HORN	198001	198312
003	0028	PM10 - LOCAL CONDITI	WESTMORELAND, ABSALOKA MINE #5, HARDIN		BIG HORN	199801	199812
003	0028	PM10 TOTAL 0-10UM	WESTMORELAND, ABSALOKA MINE #5, HARDIN		BIG HORN	199110	199712
003	0028	SUSPENDED PARTICULAT	WESTMORELAND, ABSALOKA MINE #5, HARDIN		BIG HORN	198001	199109
003	0028	SUSPENDED PARTICULAT	WESTMORELAND, ABSALOKA MINE #5, HARDIN		BIG HORN	198201	199012
003	0029	PM10 TOTAL 0-10UM	WESTMORELAND, ABSALOKA MINE #6, HARDIN		BIG HORN	199110	199412
003	0029	SUSPENDED PARTICULAT	WESTMORELAND, ABSALOKA MINE #6, HARDIN		BIG HORN	198001	199109
003	0030	SUSPENDED PARTICULAT	WESTMORELAND,ABSALOKA MINE #7, HARDIN		BIG HORN	198001	198312
003	0031	PM10 - LOCAL CONDITI	SAND ROCK, ABSALOKA MINE, 30 MI E HARDIN		BIG HORN	199801	199812
003	0031	PM10 TOTAL 0-10UM	SAND ROCK, ABSALOKA MINE, 30 MI E HARDIN		BIG HORN	199501	199712
003	0035	SUSPENDED PARTICULAT	WESTMORELAND,ABSALOKA MINE #10, HARDIN		BIG HORN	198001	198312
003	0036	PM10 - LOCAL CONDITI	WESTMORELAND, ABSALOKA MINE #7, HARDIN		BIG HORN	199801	199812
003	0036	PM10 TOTAL 0-10UM	WESTMORELAND, ABSALOKA MINE #7, HARDIN		BIG HORN	199110	199712
003	0036	SUSPENDED PARTICULAT	WESTMORELAND, ABSALOKA MINE #7, HARDIN		BIG HORN	198301	199109

003	0039	SIZE FRACTINTD PARTI	BUSBY MT	BIG HORN	198201	198312
003	0039	SUSPENDE PARTICULAT	BUSBY MT	BIG HORN	198201	198312
003	0040	SUSPENDE PARTICULAT	BUSBY MONTANA	BIG HORN	198401	198812
003	0041	SUSPENDE PARTICULAT	CROW AGENCY MONTANA	BIG HORN	198501	198612
003	0042	SUSPENDE PARTICULAT	LODGE GRASS CITY PARK	BIG HORN	198501	198812
003	0042	SUSPENDE PARTICULAT	LODGE GRASS CITY PARK	BIG HORN	198611	198812
003	0043	OUTDOOR TEMPERATURE	CROW DNR BUILDING 1 1/2 MI SO OF CROW AG	BIG HORN	198401	198512
003	0043	WIND DIRECTION	CROW DNR BUILDING 1 1/2 MI SO OF CROW AG	BIG HORN	198401	198512
003	0043	WIND SPEED	CROW DNR BUILDING 1 1/2 MI SO OF CROW AG	BIG HORN	198401	198512
003	0044	SULFATION RATE	HARDIN - CROW #7	BIG HORN	198612	198812
003	0045	SUSPENDE PARTICULAT	CROW - PRYOR CLINIC	BIG HORN	198701	198812
003	0046	OUTDOOR TEMPERATURE	DECKER WEST, WEST DECKER MINE	BIG HORN	199407	
003	0046	STD DEV HZ WND DIR	DECKER WEST, WEST DECKER MINE	BIG HORN	199407	
003	0046	WIND DIRECTION	DECKER WEST, WEST DECKER MINE	BIG HORN	199407	
003	0046	WIND SPEED	DECKER WEST, WEST DECKER MINE	BIG HORN	199407	
005	0001	SUSPENDE PARTICULAT	CAMPCRIER, TOP OF CAMPCRIER BUILDING	BLAINE	198201	198812
005	0001	SUSPENDE PARTICULAT	CAMPCRIER, TOP OF CAMPCRIER BUILDING	BLAINE	198201	198907
005	0001	WIND DIRECTION	CAMPCRIER, TOP OF CAMPCRIER BUILDING	BLAINE	198101	198906
005	0001	WIND SPEED	CAMPCRIER, TOP OF CAMPCRIER BUILDING	BLAINE	198101	198906
005	0002	PM10 TOTAL 0-10UM	HAYS FORESTRY SHOP, HAYS	BLAINE	199001	199307
005	0002	SUSPENDE PARTICULAT	HAYS FORESTRY SHOP, HAYS	BLAINE	198301	199112
005	0002	WIND DIRECTION	HAYS FORESTRY SHOP, HAYS	BLAINE	199210	199307
005	0002	WIND SPEED	HAYS FORESTRY SHOP, HAYS	BLAINE	199210	199307
007	0001	SUSPENDE PARTICULAT	CONTINENTAL LIME,INDIAN CREEK #7	BROADWATER	198301	198312
007	0004	OUTDOOR TEMPERATURE	INDIAN CREEK MET STATION, TOWNSEND	BROADWATER	199009	199812
007	0004	STD DEV HZ WND DIR	INDIAN CREEK MET STATION, TOWNSEND	BROADWATER	199009	199812
007	0004	SUSPENDE PARTICULAT	INDIAN CREEK MET STATION, TOWNSEND	BROADWATER	198301	198412
007	0004	WIND DIRECTION	INDIAN CREEK MET STATION, TOWNSEND	BROADWATER	199009	199812
007	0004	WIND SPEED	INDIAN CREEK MET STATION, TOWNSEND	BROADWATER	199009	199812
007	0005	SUSPENDE PARTICULAT	CONTINENTAL LIME,INDIAN CREEK #4	BROADWATER	198301	198412
007	0008	PM10 TOTAL 0-10UM	CONTINENTAL LIME-INDIAN CREEK #1-LANDFIL	BROADWATER	198910	199612
007	0009	PM10 - LOCAL CONDITI	CONTINENTAL LIME-INDIAN CRK #2-HILLSIDE	BROADWATER	199801	199812
007	0009	PM10 TOTAL 0-10UM	CONTINENTAL LIME-INDIAN CRK #2-HILLSIDE	BROADWATER	198910	199712
007	0010	PM10 TOTAL 0-10UM	CONTINENTAL LIME-INDIAN CRK #3-QUARRY	BROADWATER	198910	199504
007	0011	ARSENIC (PM10)	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	199001	199011
007	0011	CADMIUM (PM10)	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	199001	199011
007	0011	CHROMIUM (PM10)	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	199001	199011
007	0011	LEAD (PM10)	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	199001	199011
007	0011	OUTDOOR TEMPERATURE	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	198909	199011
007	0011	PM10 TOTAL 0-10UM	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	198909	199011
007	0011	STD DEV HZ WND DIR	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	198909	199011
007	0011	WIND DIRECTION	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	198909	199011
007	0011	WIND SPEED	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	198909	199011
007	0011	ZINC (PM10)	PEGASUS GOLD-DIAMOND HILL SITE #1	BROADWATER	199001	199011
007	0012	OUTDOOR TEMPERATURE	PEGASUS GOLD-DIAMOND HILL SITE #2	BROADWATER	198910	199006
007	0012	STD DEV HZ WND DIR	PEGASUS GOLD-DIAMOND HILL SITE #2	BROADWATER	198909	199008
007	0012	WIND DIRECTION	PEGASUS GOLD-DIAMOND HILL SITE #2	BROADWATER	198909	199008
007	0012	WIND SPEED	PEGASUS GOLD-DIAMOND HILL SITE #2	BROADWATER	198909	199008
007	0013	SULFUR DIOXIDE	CONTINENTAL LIME-INDIAN CREEK #5,TOWNSND	BROADWATER	199304	199609
007	0014	PM10 - LOCAL CONDITI	WHITE PINE GULCH;4 MI W OFF RT 12/287	BROADWATER	199801	199812



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
007	0014	PM10 TOTAL 0-10UM	WHITE PINE GULCH;4 MI W OFF RT 12/287		BROADWATER	199504	199712
007	0015	ARSENIC (PM10)	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199802
007	0015	CADMIUM (PM10)	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199802
007	0015	CHROMIUM (PM10)	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199802
007	0015	LEAD (PM10)	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199802
007	0015	PM10 - LOCAL CONDITI	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199801	
007	0015	PM10 TOTAL 0-10UM	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199712
007	0015	ZINC (PM10)	DIAMOND HILL MINE;7 MILES W OF TOWNSEND		BROADWATER	199611	199802
011	0001	SUSPENDED PARTICULAT	CARTER SITE NEAR EKALAKA		CARTER	197401	197712
011	0002	NITRATE (TSP)	KEN HUTTON RESIDENCE EKALAKA,MONTANA		CARTER	197701	197712
011	0002	SULFATE (TSP)	KEN HUTTON RESIDENCE EKALAKA,MONTANA		CARTER	197701	197712
011	0002	SUSPENDED PARTICULAT	KEN HUTTON RESIDENCE EKALAKA,MONTANA		CARTER	197701	197712
013	0001	CARBON MONOXIDE	NW CORNER 10AVE S/2ND ST INTERSECTION	GREAT FALLS	CASCADE	200107	
013	0007	ARSENIC (TSP)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197101	197212
013	0007	BENZENE SOL ORG(TSP)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197101	197212
013	0007	CADMIUM (TSP)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197201	197212
013	0007	LEAD (TSP)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197101	197212
013	0007	SULFATION RATE	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197801	198012
013	0007	SULFUR DIOXIDE	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197501	197512
013	0007	SUSPENDED PARTICULAT	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197101	198112
013	0007	TOTAL DUSTFALL	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197801	198112
013	0007	ZINC (TSP)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	GREAT FALLS	CASCADE	197201	197212
013	0009	NITRATE (TSP)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	197801	198212
013	0009	PM10 TOTAL 0-10UM	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	198807	199709
013	0009	PM10 TOTAL 0-10UM	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	198910	199012
013	0009	SULFATE (TSP)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	197801	198212
013	0009	SULFATION RATE	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	197801	198012
013	0009	SUSPENDED PARTICULAT	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	197301	198910
013	0009	SUSPENDED PARTICULAT	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	198807	198910
013	0009	TOTAL DUSTFALL	FIRE STATION, 9TH ST & 1ST AVE SOUTH	GREAT FALLS	CASCADE	197801	198112
013	0015	CARBON MONOXIDE	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197701	197912
013	0015	NITRATE (TSP)	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197801	197812
013	0015	SULFATE (TSP)	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197801	197812
013	0015	SULFATION RATE	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197801	197812
013	0015	SUSPENDED PARTICULAT	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197701	197812
013	0015	TOTAL DUSTFALL	10TH AVE SOUTH & 9TH STREET	GREAT FALLS	CASCADE	197801	197912
013	0016	ARSENIC (TSP)	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197212
013	0016	BENZENE SOL ORG(TSP)	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197212
013	0016	CADMIUM (TSP)	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197212
013	0016	LEAD (TSP)	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197212
013	0016	SUSPENDED PARTICULAT	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197310

013	0016	ZINC (TSP)	1100 SMELTER AVE (BLACK EAGLE)		CASCADE	197101	197212
013	0017	NITRATE (TSP)	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198201	198212
013	0017	PM10 TOTAL 0-10UM	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198501	198712
013	0017	PM10 TOTAL 0-10UM	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198703	198812
013	0017	SULFATE (TSP)	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198201	198212
013	0017	SUSPENDED PARTICULAT	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198006	198812
013	0017	SUSPENDED PARTICULAT	DOWNTOWN, 301 2ND AVE NORTH	GREAT FALLS	CASCADE	198006	199007
013	0018	SULFUR DIOXIDE	FLEET, 1101 SMELTER AVE		CASCADE	197201	197212
013	0021	CARBON MONOXIDE	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	GREAT FALLS	CASCADE	198001	198312
013	0021	WIND DIRECTION	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	GREAT FALLS	CASCADE	198301	198312
013	0021	WIND SPEED	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	GREAT FALLS	CASCADE	198301	198312
013	0022	SUSPENDED PARTICULAT	FRANKLIN SCHOOL, 813 SECOND AVE SW	GREAT FALLS	CASCADE	198301	198412
013	0023	SULFUR DIOXIDE	RIVER ROAD & GIANT SPRINGS JUNCTION		CASCADE	197301	197312
013	0024	SULFUR DIOXIDE	G F SPEEDWAY CLUBHOUSE (GREAT FALLS)		CASCADE	197201	197312
013	0027	SUSPENDED PARTICULAT	BUILDING SUPPLY BELT, MT		CASCADE	197301	197512
013	0028	SUSPENDED PARTICULAT	BLACKEAGLE POST OFFICE, 1321 SMELTER AVE		CASCADE	197401	197512
013	0302	BAROMETRIC PRESSURE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	BERYLLIUM (TSP)	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	CARBON MONOXIDE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	LIGHT SCATTER	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	NITRIC OXIDE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	NITROGEN DIOXIDE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	OUTDOOR TEMPERATURE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198101	198112
013	0302	OXIDES OF NITROGEN	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	OZONE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	SOLAR RADIATION	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	SULFATE (TSP)	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	SULFUR DIOXIDE	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	SUSPENDED PARTICULAT	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	TEMPERATURE DIFFEREN	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198101	198112
013	0302	WIND DIRECTION	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	WIND SPEED	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	0302	ZINC (TSP)	RESOURCE 89-SALEM PROJECT, N GREATFALLS		CASCADE	198001	198112
013	1016	ALUMINUM (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	197912
013	1016	ARSENIC (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	CADMIUM (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	CHROMIUM (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197901	198012
013	1016	COPPER (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	IRON (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	197912
013	1016	LEAD (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	MANGANESE (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	NICKEL (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	NITRATE (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	NITROGEN DIOXIDE	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197901	198012
013	1016	SULFATE (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198012
013	1016	SULFUR DIOXIDE	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197901	198012
013	1016	SUSPENDED PARTICULAT	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	198212
013	1016	VANADIUM (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197901	198012
013	1016	WIND DIRECTION	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	198001	198012
013	1016	WIND SPEED	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	198001	198012

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
013	1016	ZINC (TSP)	KIWANIS PARK (MAPS STUDY)	GREAT FALLS	CASCADE	197801	197912
013	1018	SUSPENDED PARTICULAT	RIVERVIEW SCHOOL, 100 SMELTER AVE	GREAT FALLS	CASCADE	198001	198212
013	1019	ARSENIC (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198012
013	1019	CHROMIUM (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198012
013	1019	NICKEL (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198012
013	1019	NITRATE (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198212
013	1019	SULFATE (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198212
013	1019	SUSPENDED PARTICULAT	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198712
013	1019	VANADIUM (TSP)	1321 SMELTER AVE BLACK EAGLE	GREAT FALLS	CASCADE	198001	198012
013	1020	SUSPENDED PARTICULAT	LINCOLN SCHOOL, 3625 27TH SOUTH	GREAT FALLS	CASCADE	198001	198212
013	1023	CARBON MONOXIDE	PARDIS CLINIC, 826 10TH AVE SOUTH	GREAT FALLS	CASCADE	198311	198910
013	1023	WIND DIRECTION	PARDIS CLINIC, 826 10TH AVE SOUTH	GREAT FALLS	CASCADE	198311	198910
013	1023	WIND SPEED	PARDIS CLINIC, 826 10TH AVE SOUTH	GREAT FALLS	CASCADE	198311	198910
013	1024	SUSPENDED PARTICULAT	SUNNYSIDE SCHOOL, 1800 - 19TH AVE SOUTH	GREAT FALLS	CASCADE	198701	199002
013	1025	CARBON MONOXIDE	SKYWAY CONOCO, 700-10TH AVE SOUTH	GREAT FALLS	CASCADE	198910	200106
013	1025	STD DEV HZ WND DIR	SKYWAY CONOCO, 700-10TH AVE SOUTH	GREAT FALLS	CASCADE	199010	199510
013	1025	WIND DIRECTION	SKYWAY CONOCO, 700-10TH AVE SOUTH	GREAT FALLS	CASCADE	198911	199510
013	1025	WIND SPEED	SKYWAY CONOCO, 700-10TH AVE SOUTH	GREAT FALLS	CASCADE	198911	199510
013	1026	AMBIENT AVG TEMPERAT	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	AMBIENT MAX TEMPERAT	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	AMBIENT MIN TEMPERAT	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	ELAPSED SAMPLE TIME	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	PM2.5 - LOCAL CONDIT	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	SAMPLE AVG BARO PRES	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	SAMPLE FLOW RATE,CV	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	SAMPLE MAX BARO PRES	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	SAMPLE MIN BARO PRES	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	1026	SAMPLE VOLUME	GT FALLS HIGH SCHOOL CRN 3RD S & 17TH E	GREAT FALLS	CASCADE	200001	
013	2000	STD DEV HZ WND DIR	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	GREAT FALLS	CASCADE	199411	200004
013	2000	SULFUR DIOXIDE	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	GREAT FALLS	CASCADE	199411	200004
013	2000	WIND DIRECTION	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	GREAT FALLS	CASCADE	199411	200004
013	2000	WIND SPEED	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	GREAT FALLS	CASCADE	199411	200004
017	0001	BENZENE SOL ORG(TSP)	MAIN AND HAYES	MILES CITY	CUSTER	197201	197312
017	0001	CADMIUM (TSP)	MAIN AND HAYES	MILES CITY	CUSTER	197201	197312
017	0001	LEAD (TSP)	MAIN AND HAYES	MILES CITY	CUSTER	197201	197312
017	0001	SUSPENDED PARTICULAT	MAIN AND HAYES	MILES CITY	CUSTER	197201	197312
017	0001	ZINC (TSP)	MAIN AND HAYES	MILES CITY	CUSTER	197201	197312
017	0003	SUSPENDED PARTICULAT	PCA BUILDING, MAIN & HAYES	MILES CITY	CUSTER	198001	198312
017	0004	SUSPENDED PARTICULAT	LITTLEFIELD HILLTOP		CUSTER	197601	197812
019	0001	BAROMETRIC PRESSURE	SCOBIEY BORDER #1, PORT OF ENTRY, SCOBIEY		DANIELS	197901	198112
019	0001	DEW POINT	SCOBIEY BORDER #1, PORT OF ENTRY, SCOBIEY		DANIELS	197801	197912

019	0001	LIGHT SCATTER	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198312
019	0001	NITRATE (TSP)	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198412
019	0001	NITROGEN DIOXIDE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197601	197912
019	0001	OUTDOOR TEMPERATURE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197801	198312
019	0001	SOLAR RADIATION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	197912
019	0001	SOLAR RADIATION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198012
019	0001	SOLAR RADIATION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	198001	198112
019	0001	SOLAR RADIATION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	198001	198212
019	0001	SOLAR RADIATION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	198001	198312
019	0001	SULFATE (TSP)	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198412
019	0001	SULFATION RATE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	198401	198512
019	0001	SULFATION RATE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	198401	198712
019	0001	SULFUR DIOXIDE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197601	197912
019	0001	SULFUR DIOXIDE	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198512
019	0001	SUSPENDED PARTICULAT	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197501	198512
019	0001	WIND DIRECTION	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198312
019	0001	WIND SPEED	SCOBEEY BORDER #1, PORT OF ENTRY, SCOBEEY	DANIELS	197901	198312
019	0002	NITRATE (TSP)	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197901	198412
019	0002	OUTDOOR TEMPERATURE	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197801	197912
019	0002	SULFATE (TSP)	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197901	198412
019	0002	SULFATION RATE	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	198401	198512
019	0002	SULFATION RATE	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	198401	199101
019	0002	SUSPENDED PARTICULAT	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197701	198512
019	0002	WIND DIRECTION	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197901	197912
019	0002	WIND SPEED	RICHARDSON RES. 1 MILE N OF SCOBEEY MT	DANIELS	197901	197912
019	0003	NITRATE (TSP)	ENGBERG RANCH,SCOBEEY,MONTANA	DANIELS	197901	198012
019	0003	SULFATE (TSP)	ENGBERG RANCH,SCOBEEY,MONTANA	DANIELS	197901	198012
019	0003	SUSPENDED PARTICULAT	ENGBERG RANCH,SCOBEEY,MONTANA	DANIELS	197701	198012
019	0004	NITRATE (TSP)	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198001	198412
019	0004	OUTDOOR TEMPERATURE	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198401	198512
019	0004	SULFATE (TSP)	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198001	198412
019	0004	SULFATION RATE	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198401	198712
019	0004	SULFUR DIOXIDE	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198001	198512
019	0004	SUSPENDED PARTICULAT	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198001	198512
019	0004	WIND DIRECTION	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198001	198512
019	0004	WIND SPEED	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	DANIELS	198101	198512
019	0005	SULFATION RATE	#3 MICROWAVE TOWER WHITETAIL MT	DANIELS	198401	198512
019	0005	SULFATION RATE	#3 MICROWAVE TOWER WHITETAIL MT	DANIELS	198401	198612
019	0006	SULFATION RATE	FLAXVILLE, WILSON ST & 2ND AVE	DANIELS	198401	198512
019	0006	SULFATION RATE	FLAXVILLE, WILSON ST & 2ND AVE	DANIELS	198401	199101
019	0007	SULFATION RATE	#6 TV TOWER HILL SCOBEEY MT	DANIELS	198401	198512
019	0007	SULFATION RATE	#6 TV TOWER HILL SCOBEEY MT	DANIELS	198401	199101
019	0008	SULFATION RATE	SCOBEEY DOWNTOWN	DANIELS	198401	198512
019	0008	SULFATION RATE	SCOBEEY DOWNTOWN	DANIELS	198401	199101
019	0009	SULFATION RATE	FOUR BUTTES, NORTH OF RTE 248 NEAR SCOBEEY	DANIELS	198401	198512
019	0009	SULFATION RATE	FOUR BUTTES, NORTH OF RTE 248 NEAR SCOBEEY	DANIELS	198401	199101
019	0010	OUTDOOR TEMPERATURE	MARLENEE RANCH, SCOBEEY MT	DANIELS	198610	198712
019	0010	SULFUR DIOXIDE	MARLENEE RANCH, SCOBEEY MT	DANIELS	197601	198712
019	0010	SUSPENDED PARTICULAT	MARLENEE RANCH, SCOBEEY MT	DANIELS	198601	198712
019	0010	WIND DIRECTION	MARLENEE RANCH, SCOBEEY MT	DANIELS	198610	198712

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
019	0010	WIND SPEED	MARLENEE RANCH, SCOBEE MT		DANIELS	198610	198712
021	0001	SUSPENDED PARTICULAT	GLENDIVE MICROWAVE, BURMAN RANCH		DAWSON	197401	197812
021	0001	WIND DIRECTION	GLENDIVE MICROWAVE, BURMAN RANCH		DAWSON	197601	197612
021	0001	WIND SPEED	GLENDIVE MICROWAVE, BURMAN RANCH		DAWSON	197601	197612
021	0002	NITRATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197601	197612
021	0002	NITRATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197701	197712
021	0002	SULFATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197601	197712
021	0002	SUSPENDED PARTICULAT	MAGELSKY (LINDSAY)		DAWSON	197401	197712
021	0003	NITRATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197601	197612
021	0003	NITRATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197701	197712
021	0003	SULFATE (TSP)	MAGELSKY (LINDSAY)		DAWSON	197601	197712
021	0003	SUSPENDED PARTICULAT	MAGELSKY (LINDSAY)		DAWSON	197401	197812
021	0004	SUSPENDED PARTICULAT	KVGN TV TOWER		DAWSON	197801	198212
021	0004	WIND DIRECTION	KVGN TV TOWER		DAWSON	197401	198506
021	0004	WIND SPEED	KVGN TV TOWER		DAWSON	197401	198506
021	1001	SUSPENDED PARTICULAT	DAWSON COMMUNITY COLLEGE, S OF GLENDIVE	GLENDIVE	DAWSON	198001	198212
021	1002	SUSPENDED PARTICULAT	MEDICAL ARTS CENTER, OILWORTH & AMES	GLENDIVE	DAWSON	198201	198412
023	0001	ARSENIC (TSP)	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197112
023	0001	BENZENE SOL ORG(TSP)	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197212
023	0001	CADMIUM (TSP)	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197112
023	0001	LEAD (TSP)	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197112
023	0001	SUSPENDED PARTICULAT	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197212
023	0001	ZINC (TSP)	S&N CEMENT EAST OF ANACONDA		DEER LODGE	197101	197112
023	0003	ARSENIC (TSP)	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197212
023	0003	CADMIUM (TSP)	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197212
023	0003	LEAD (TSP)	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197212
023	0003	SULFUR DIOXIDE	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197312
023	0003	SUSPENDED PARTICULAT	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197312
023	0003	ZINC (TSP)	KUCERA RESIDENCE MILL CREEK		DEER LODGE	197201	197212
023	0004	ALUMINUM (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198512
023	0004	ARSENIC (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198712
023	0004	CADMIUM (TSP)	HIWAY JUNCTION		DEER LODGE	197702	198512
023	0004	CHROMIUM (TSP)	HIWAY JUNCTION		DEER LODGE	197807	198512
023	0004	COPPER (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198512
023	0004	IRON (TSP)	HIWAY JUNCTION		DEER LODGE	197801	197912
023	0004	LEAD (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198512
023	0004	MANGANESE (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198012
023	0004	NICKEL (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198012
023	0004	NITRATE (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198012
023	0004	SULFATE (TSP)	HIWAY JUNCTION		DEER LODGE	197801	197812
023	0004	SULFATE (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198012

023	0004	SULFUR DIOXIDE	HIWAY JUNCTION		DEER LODGE	197201	197908
023	0004	SUSPENDED PARTICULAT	HIWAY JUNCTION		DEER LODGE	197501	198712
023	0004	VANADIUM (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198012
023	0004	WIND DIRECTION	HIWAY JUNCTION		DEER LODGE	197601	197912
023	0004	WIND DIRECTION	HIWAY JUNCTION		DEER LODGE	197801	197912
023	0004	WIND SPEED	HIWAY JUNCTION		DEER LODGE	197601	197912
023	0004	WIND SPEED	HIWAY JUNCTION		DEER LODGE	197801	197912
023	0004	ZINC (TSP)	HIWAY JUNCTION		DEER LODGE	197801	198512
023	0005	ARSENIC (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197212
023	0005	BENZENE SOL ORG(TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197112
023	0005	CADMIUM (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197212
023	0005	FLUORIDE (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197112
023	0005	LEAD (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197212
023	0005	SULFATE (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197112
023	0005	SUSPENDED PARTICULAT	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197212
023	0005	ZINC (TSP)	ANACONDA JR HI CORNER OF 4TH AND MAIN	ANACONDA-DEER L	DEER LODGE	197101	197212
023	0006	ARSENIC (TSP)	KIRKEBY RESIDENCE, 1200 E 6TH	ANACONDA-DEER L	DEER LODGE	197201	197212
023	0006	CADMIUM (TSP)	KIRKEBY RESIDENCE, 1200 E 6TH	ANACONDA-DEER L	DEER LODGE	197201	197212
023	0006	LEAD (TSP)	KIRKEBY RESIDENCE, 1200 E 6TH	ANACONDA-DEER L	DEER LODGE	197201	197212
023	0006	SUSPENDED PARTICULAT	KIRKEBY RESIDENCE, 1200 E 6TH	ANACONDA-DEER L	DEER LODGE	197201	197212
023	0006	ZINC (TSP)	KIRKEBY RESIDENCE, 1200 E 6TH	ANACONDA-DEER L	DEER LODGE	197201	197212
023	0007	ALUMINUM (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	ALUMINUM (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0007	ARSENIC (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	ARSENIC (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198612
023	0007	ARSENIC (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198501	198512
023	0007	CADMIUM (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	CADMIUM (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0007	CHROMIUM (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	CHROMIUM (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0007	COPPER (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	COPPER (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0007	IRON (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	197912
023	0007	LEAD (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	LEAD (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0007	LEAD (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	MANGANESE (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198012
023	0007	NICKEL (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198012
023	0007	NITRATE (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198012
023	0007	NITROGEN DIOXIDE	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	197912
023	0007	OZONE	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197901	198012
023	0007	PM10 TOTAL 0-10UM	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	SULFATE (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0007	SULFATE (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198012
023	0007	SULFUR DIOXIDE	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198112
023	0007	SUSPENDED PARTICULAT	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198612
023	0007	SUSPENDED PARTICULAT	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	TOTAL HYDROCARBONS	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197901	197912
023	0007	VANADIUM (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198012
023	0007	WIND DIRECTION	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198112

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
023	0007	WIND SPEED	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198112
023	0007	ZINC (PM10)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0007	ZINC (TSP)	LINCOLN SCHOOL	ANACONDA-DEER L	DEER LODGE	197801	198512
023	0008	ALUMINUM (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	ARSENIC (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	CADMIUM (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	CHROMIUM (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	COPPER (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	IRON (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	LEAD (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	MANGANESE (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	NICKEL (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	NITRATE (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	SULFATE (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	SUSPENDED PARTICULAT	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0008	ZINC (TSP)	LINCOLN SCHOOL #2	ANACONDA-DEER L	DEER LODGE	197801	197812
023	0009	SULFUR DIOXIDE	WARM SPRINGS		DEER LODGE	197101	197212
023	0010	ARSENIC (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	ATMOSPHERIC STABILTY	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198908	199209
023	0010	BERYLLIUM (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	CADMIUM (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	COPPER (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	LEAD (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	PM10 TOTAL 0-10UM	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0010	STD DEV HZ WND DIR	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198908	199209
023	0010	WIND DIRECTION	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198908	199209
023	0010	WIND SPEED	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198908	199209
023	0010	ZINC (PM10)	ARCO COAL - TERESEA ANN TERRACE	ANACONDA-DEER L	DEER LODGE	198907	199209
023	0011	ARSENIC (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	ATMOSPHERIC STABILTY	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	BERYLLIUM (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	CADMIUM (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	COPPER (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	LEAD (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	PM10 TOTAL 0-10UM	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	STD DEV HZ WND DIR	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	WIND DIRECTION	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	WIND SPEED	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0011	ZINC (PM10)	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0012	ARSENIC (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	CADMIUM (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912

023	0012	CHROMIUM (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	COPPER (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	LEAD (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	MANGANESE (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	NICKEL (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	NITRATE (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	SULFATE (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0012	SULFUR DIOXIDE	MILL CREEK RR CROSSING		DEER LODGE	197501	197912
023	0012	SUSPENDED PARTICULAT	MILL CREEK RR CROSSING		DEER LODGE	197801	197912
023	0012	VANADIUM (TSP)	MILL CREEK RR CROSSING		DEER LODGE	197901	197912
023	0021	ARSENIC (TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	BENZENE SOL ORG(TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	CADMIUM (TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	LEAD (TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	SULFATE (TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	SUSPENDED PARTICULAT	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0021	ZINC (TSP)	WALLEY JOHNSON RESIDENCE (SILICA)		DEER LODGE	197101	197112
023	0022	ARSENIC (TSP)	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	BENZENE SOL ORG(TSP)	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	CADMIUM (TSP)	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	LEAD (TSP)	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	SULFUR DIOXIDE	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	SUSPENDED PARTICULAT	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0022	ZINC (TSP)	BAILEY RESIDENCE EAST OF ANACONDA		DEER LODGE	197101	197112
023	0026	SULFUR DIOXIDE	POOR FARM RESIDENCE		DEER LODGE	197101	197312
023	0035	SULFUR DIOXIDE	CORTRITE TRAILER COURT		DEER LODGE	197201	197212
023	0036	SULFUR DIOXIDE	WILLOW GLENN RANCH		DEER LODGE	197301	197312
023	0037	SULFUR DIOXIDE	ANTELOPE		DEER LODGE	197301	197512
023	0038	SULFUR DIOXIDE	PUMP HOUSE M-2		DEER LODGE	197501	197612
023	0039	SUSPENDED PARTICULAT	WARM SPRINGS		DEER LODGE	198001	198112
023	0041	FLUORIDE(VEGETATION)	RHONE-POULENC,#15 PETERSON,1 M N FAIRMNT		DEER LODGE	198301	199609
023	0706	ALUMINUM (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	198512
023	0706	ALUMINUM (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	ARSENIC (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	199206
023	0706	ARSENIC (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	ATMOSPHERIC STABILTY	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	BERYLLIUM (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	CADMIUM (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	199206
023	0706	CADMIUM (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	CHROMIUM (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	198512
023	0706	CHROMIUM (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	COPPER (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	199206
023	0706	COPPER (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	LEAD (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	199206
023	0706	LEAD (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	OUTDOOR TEMPERATURE	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	PM10 TOTAL 0-10UM	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	PM10 TOTAL 0-10UM	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	RAIN/MELT PRECIP	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	RELATIVE HUMIDITY	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
023	0706	SOLAR RADIATION	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	STD DEV HZ WND DIR	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	SUSPENDED PARTICULAT	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0706	WIND DIRECTION	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	WIND SPEED	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0706	ZINC (PM10)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198501	199206
023	0706	ZINC (TSP)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	ANACONDA-DEER L	DEER LODGE	198401	198512
023	0711	ALUMINUM (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	ALUMINUM (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	ARSENIC (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	ARSENIC (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	CADMIUM (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	CADMIUM (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	CHROMIUM (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	CHROMIUM (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	COPPER (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	COPPER (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	LEAD (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	LEAD (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	PM10 TOTAL 0-10UM	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	SUSPENDED PARTICULAT	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	WIND DIRECTION	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	WIND SPEED	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	ZINC (PM10)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0711	ZINC (TSP)	JOHNSONS CURVE, RTE 48, WARM SPRINGS		DEER LODGE	198401	198512
023	0712	ARSENIC (TSP)	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0712	CADMIUM (TSP)	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0712	COPPER (TSP)	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0712	LEAD (TSP)	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0712	SUSPENDED PARTICULAT	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0712	ZINC (TSP)	WHEELS-N-DEALS, 1100 W PARK		DEER LODGE	198601	198612
023	0713	ARSENIC (TSP)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0713	CADMIUM (TSP)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0713	COPPER (TSP)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0713	LEAD (TSP)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0713	SUSPENDED PARTICULAT	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0713	ZINC (TSP)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA		DEER LODGE	198601	198812
023	0714	ARSENIC (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	ARSENIC (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	ARSENIC (TSP)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0714	BERYLLIUM (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012

023	0714	BERYLLIUM (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	CADMIUM (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	CADMIUM (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	CADMIUM (TSP)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0714	COPPER (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	COPPER (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	COPPER (TSP)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0714	LEAD (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	LEAD (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	LEAD (TSP)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0714	PM10 TOTAL 0-10UM	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	PM10 TOTAL 0-10UM	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	SUSPENDED PARTICULAT	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0714	ZINC (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199012
023	0714	ZINC (PM10)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198908	199206
023	0714	ZINC (TSP)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	ANACONDA-DEER L	DEER LODGE	198601	198912
023	0801	SULFUR DIOXIDE	WATER OFFICE		DEER LODGE	197501	198012
023	0802	SULFUR DIOXIDE	COUNTY AIRPORT		DEER LODGE	197501	198012
023	0803	SULFUR DIOXIDE	OPPORTUNITY		DEER LODGE	197501	198012
023	0804	SULFUR DIOXIDE	MILL CREEK		DEER LODGE	197501	198012
023	0806	SULFUR DIOXIDE	C - HILL		DEER LODGE	197501	197912
023	0807	SULFUR DIOXIDE	WEST GATE OF ACC		DEER LODGE	197501	198012
023	0904	SULFUR DIOXIDE	POST OFFICE	ANACONDA-DEER L	DEER LODGE	197301	197312
023	0904	SULFUR DIOXIDE	POST OFFICE	ANACONDA-DEER L	DEER LODGE	197301	197512
023	0904	SULFUR DIOXIDE	POST OFFICE	ANACONDA-DEER L	DEER LODGE	197401	197812
023	0905	SULFUR DIOXIDE	TAILINGS HILL		DEER LODGE	197301	197312
023	0905	SULFUR DIOXIDE	TAILINGS HILL		DEER LODGE	197301	197512
023	0905	SULFUR DIOXIDE	TAILINGS HILL		DEER LODGE	197401	197512
023	0905	SUSPENDED PARTICULAT	TAILINGS HILL		DEER LODGE	197401	197512
023	0906	SULFUR DIOXIDE	'C' HILL SOUTH OF ANACONDA		DEER LODGE	197401	197412
023	0906	SULFUR DIOXIDE	'C' HILL SOUTH OF ANACONDA		DEER LODGE	197401	197812
025	0001	SUSPENDED PARTICULAT	BOX 103 PLEUNA MT 59433		FALLON	198101	198412
027	0001	PM10 TOTAL 0-10UM	KENDALL VENTURE MINE-TOWN SITE #1,HILGER		FERGUS	198809	198912
027	0002	SUSPENDED PARTICULAT	LEWISTOWN DOWNTOWN, 450 N. JANEAU	LEWISTOWN	FERGUS	198001	198312
027	0003	PM10 TOTAL 0-10UM	CR KENDALL-POND SITE #2, HILGER880901		FERGUS	198809	198912
027	0003	WIND DIRECTION	CR KENDALL-POND SITE #2, HILGER880901		FERGUS	198809	199001
027	0003	WIND SPEED	CR KENDALL-POND SITE #2, HILGER880901		FERGUS	198809	199001
027	0004	ARSENIC (PM10)	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199001	199112
027	0004	CADMIUM (PM10)	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199001	199112
027	0004	CHROMIUM (PM10)	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199001	199112
027	0004	LEAD (PM10)	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199001	199112
027	0004	OUTDOOR TEMPERATURE	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199002	199203
027	0004	PM10 TOTAL 0-10UM	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199001	199712
027	0004	STD DEV HZ WND DIR	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199002	199203
027	0004	WIND DIRECTION	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199002	199203
027	0004	WIND SPEED	CR KENDALL-N TOWNSITE #3, HILGER		FERGUS	199002	199203
027	0005	ARSENIC (PM10)	CR KENDALL-BSA SITE #4, HILGER		FERGUS	199001	199112
027	0005	CADMIUM (PM10)	CR KENDALL-BSA SITE #4, HILGER		FERGUS	199001	199112
027	0005	CHROMIUM (PM10)	CR KENDALL-BSA SITE #4, HILGER		FERGUS	199001	199112
027	0005	LEAD (PM10)	CR KENDALL-BSA SITE #4, HILGER		FERGUS	199001	199112

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
027	0005	PM10 TOTAL 0-10UM	CR KENDALL-BSA SITE #4, HILGER		FERGUS	199001	199712
029	0002	BENZENE SOL ORG(TSP)	HIGH SCHOOL	COLUMBIA FALLS	FLATHEAD	197201	197712
029	0002	CADMIUM (TSP)	HIGH SCHOOL	COLUMBIA FALLS	FLATHEAD	197201	197712
029	0002	LEAD (TSP)	HIGH SCHOOL	COLUMBIA FALLS	FLATHEAD	197201	197712
029	0002	SUSPENDED PARTICULAT	HIGH SCHOOL	COLUMBIA FALLS	FLATHEAD	197201	197712
029	0002	ZINC (TSP)	HIGH SCHOOL	COLUMBIA FALLS	FLATHEAD	197201	197712
029	0003	BENZENE SOL ORG(TSP)	JR HIGH SCHOOL, 500 4TH AVE NORTH	COLUMBIA FALLS	FLATHEAD	197101	198712
029	0003	PM10 - LOCAL CONDITI	JR HIGH SCHOOL, 500 4TH AVE NORTH	COLUMBIA FALLS	FLATHEAD	199801	
029	0003	PM10 TOTAL 0-10UM	JR HIGH SCHOOL, 500 4TH AVE NORTH	COLUMBIA FALLS	FLATHEAD	198505	198712
029	0003	PM10 TOTAL 0-10UM	JR HIGH SCHOOL, 500 4TH AVE NORTH	COLUMBIA FALLS	FLATHEAD	198704	
029	0003	SUSPENDED PARTICULAT	JR HIGH SCHOOL, 500 4TH AVE NORTH	COLUMBIA FALLS	FLATHEAD	197101	198712
029	0004	FLUORIDE(PAPER/GAS)	R.E. OWENS RES HW2 S. OF COLUMBIA FALLS		FLATHEAD	198201	198312
029	0005	ALUMINUM (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	ARSENIC (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	CADMIUM (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	COPPER (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	IRON (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	LEAD (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	MANGANESE (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	NICKEL (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0005	NITRATE (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197912
029	0005	SULFATE (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197912
029	0005	SUSPENDED PARTICULAT	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197701	198712
029	0005	ZINC (TSP)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0006	DUSTFALL COMBUSTBLE	LABERE - 981 2ND ST, COLUMBIA FALLS	COLUMBIA FALLS	FLATHEAD	198601	198812
029	0006	TOTAL DUSTFALL	LABERE - 981 2ND ST, COLUMBIA FALLS	COLUMBIA FALLS	FLATHEAD	198501	198812
029	0007	PARTICULATE(PM10)	BALL PARK	COLUMBIA FALLS	FLATHEAD	200108	
029	0008	BENZENE SOL ORG(TSP)	LASALLE & EVERGREEN	KALISPELL	FLATHEAD	197201	197212
029	0008	SUSPENDED PARTICULAT	LASALLE & EVERGREEN	KALISPELL	FLATHEAD	197201	197212
029	0009	PARTICULATE(PM10)	END OF 10TH STREET	WHITEFISH	FLATHEAD	200109	
029	0009	PARTICULATE(PM2.5)	END OF 10TH STREET	WHITEFISH	FLATHEAD	200109	
029	0011	FLUORIDE(PAPER/GAS)	BEETON HILLS, MT		FLATHEAD	198201	198312
029	0011	SULFATION RATE	BEETON HILLS, MT		FLATHEAD	198201	198312
029	0012	FLUORIDE(PAPER/GAS)	(DEHLBOMS FIELD), COLUMBIA FALLS MT		FLATHEAD	198201	198312
029	0013	FLUORIDE(PAPER/GAS)	(ANACONDA SOUTH) COLUMBIA FALLS MT		FLATHEAD	198201	198312
029	0014	FLUORIDE(PAPER/GAS)	(TEAKETTLE MTN #1) COLUMBIA FALLS MT		FLATHEAD	198201	198312
029	0015	FLUORIDE(PAPER/GAS)	THE LOOP, 23 MILES NE OF WEST GLACIER MT		FLATHEAD	198201	198312
029	0015	SULFATION RATE	THE LOOP, 23 MILES NE OF WEST GLACIER MT		FLATHEAD	198201	198312
029	0016	SULFATION RATE	LOGAN PASS VISITOR CENTER		FLATHEAD	198201	198212
029	0018	SUSPENDED PARTICULAT	PETERSON SCHOOL,3RD ST & MERIDIAN RD	KALISPELL	FLATHEAD	198601	198712
029	0021	FLUORIDE(PAPER/GAS)	LAKE MCDONALD RANGER STATION		FLATHEAD	198201	198312

029	0021	SULFATION RATE	LAKE MCDONALD RANGER STATION		FLATHEAD	198201	198312
029	0022	FLUORIDE(PAPER/GAS)	(TEAKETTLE MTN #7) COLUMBIA FALLS MT		FLATHEAD	198201	198312
029	0028	FLUORIDE(PAPER/GAS)	(ALUMINUM CITY) COLUMBIA FALLS MT		FLATHEAD	198201	198312
029	0029	ALUMINUM (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	ARSENIC (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	CADMIUM (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	CHROMIUM (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	COPPER (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	FLUORIDE(PAPER/GAS)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	198312
029	0029	IRON (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	LEAD (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	MANGANESE (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	NICKEL (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	NITRATE (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197912
029	0029	SULFATE (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197912
029	0029	SUSPENDED PARTICULAT	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197401	198312
029	0029	VANADIUM (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0029	ZINC (TSP)	NAAC TRAILER, NORTH OF AAC	COLUMBIA FALLS	FLATHEAD	197801	197812
029	0034	NITRATE (TSP)	MOOSE CITY		FLATHEAD	197801	197912
029	0034	SULFATE (TSP)	MOOSE CITY		FLATHEAD	197801	197912
029	0034	SUSPENDED PARTICULAT	MOOSE CITY		FLATHEAD	197801	197912
029	0035	CADMIUM (TSP)	POLEBRIDGE, MT		FLATHEAD	198101	198112
029	0035	LEAD (TSP)	POLEBRIDGE, MT		FLATHEAD	198101	198112
029	0035	NITRATE (TSP)	POLEBRIDGE, MT		FLATHEAD	198101	198312
029	0035	SULFATE (TSP)	POLEBRIDGE, MT		FLATHEAD	198101	198312
029	0035	SUSPENDED PARTICULAT	POLEBRIDGE, MT		FLATHEAD	198101	198312
029	0036	NITRATE (TSP)	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0036	OUTDOOR TEMPERATURE	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0036	SOLAR RADIATION	BIG FORK RANGER STATION		FLATHEAD	197901	198012
029	0036	SULFATE (TSP)	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0036	SUSPENDED PARTICULAT	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0036	WIND DIRECTION	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0036	WIND SPEED	BIG FORK RANGER STATION		FLATHEAD	197901	198312
029	0037	NITRATE (TSP)	WHITEFISH, MT CORNER SECOND AND PINE		FLATHEAD	198101	198312
029	0037	SULFATE (TSP)	WHITEFISH, MT CORNER SECOND AND PINE		FLATHEAD	198101	198312
029	0037	SUSPENDED PARTICULAT	WHITEFISH, MT CORNER SECOND AND PINE		FLATHEAD	198101	198312
029	0038	WIND DIRECTION	C.F.JR HIGH PLAYGROUND 4TH W & 7TH ST.	COLUMBIA FALLS	FLATHEAD	198809	198912
029	0038	WIND SPEED	C.F.JR HIGH PLAYGROUND 4TH W & 7TH ST.	COLUMBIA FALLS	FLATHEAD	198809	198912
029	0039	AMBIENT AVG TEMPERAT	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	AMBIENT MAX TEMPERAT	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	AMBIENT MIN TEMPERAT	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	ELAPSED SAMPLE TIME	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	PM10 - LOCAL CONDITI	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199801	200104
029	0039	PM10 - LOCAL CONDITI	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	200001	200104
029	0039	PM10 TOTAL 0-10UM	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199104	200104
029	0039	PM10 TOTAL 0-10UM	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199510	200104
029	0039	PM2.5 - LOCAL CONDIT	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	SAMPLE AVG BARO PRES	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	SAMPLE FLOW RATE,CV	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	SAMPLE MAX BARO PRES	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
029	0039	SAMPLE MIN BARO PRES	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0039	SAMPLE VOLUME	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	WHITEFISH	FLATHEAD	199901	200104
029	0040	DUSTFALL COMBUSTBLE	HOUSTON DUSTFALL,1326 2ND ST W,KALISPELL		FLATHEAD	199108	199207
029	0040	TOTAL DUSTFALL	HOUSTON DUSTFALL,1326 2ND ST W,KALISPELL		FLATHEAD	199108	199207
029	0041	PM10 TOTAL 0-10UM	WHITEFISH - PATTERSON CORRAL CMB	WHITEFISH	FLATHEAD	199301	199404
029	0042	DUSTFALL COMBUSTBLE	KALISPELL-KIGER DUSTFALL	KALISPELL	FLATHEAD	199212	199310
029	0042	TOTAL DUSTFALL	KALISPELL-KIGER DUSTFALL	KALISPELL	FLATHEAD	199212	199310
029	0043	AMBIENT AVG TEMPERAT	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	AMBIENT MAX TEMPERAT	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	AMBIENT MIN TEMPERAT	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	ELAPSED SAMPLE TIME	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	PM10 - LOCAL CONDITI	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199801	199912
029	0043	PM10 TOTAL 0-10UM	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199406	199912
029	0043	PM2.5 - LOCAL CONDIT	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	SAMPLE AVG BARO PRES	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	SAMPLE FLOW RATE,CV	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	SAMPLE MAX BARO PRES	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	SAMPLE MIN BARO PRES	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0043	SAMPLE VOLUME	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	KALISPELL	FLATHEAD	199901	199906
029	0044	DUSTFALL COMBUSTBLE	KALISPELL-MORRIS DUSTFALL;53 MEADOWLARK	KALISPELL	FLATHEAD	199407	199507
029	0044	TOTAL DUSTFALL	KALISPELL-MORRIS DUSTFALL;53 MEADOWLARK	KALISPELL	FLATHEAD	199407	199507
029	0045	CARBON MONOXIDE	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	KALISPELL	FLATHEAD	199510	200002
029	0045	STD DEV HZ WND DIR	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	KALISPELL	FLATHEAD	199604	200002
029	0045	WIND DIRECTION	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	KALISPELL	FLATHEAD	199604	200002
029	0045	WIND SPEED	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	KALISPELL	FLATHEAD	199604	200002
029	0046	CARBON MONOXIDE	LASER SCH-CRNR E WASHINGTON/6TH AVE EN	KALISPELL	FLATHEAD	199611	199906
029	0047	AMBIENT AVG TEMPERAT	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	AMBIENT MAX TEMPERAT	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	AMBIENT MIN TEMPERAT	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	CARBON MONOXIDE	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	ELAPSED SAMPLE TIME	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	PM10 - LOCAL CONDITI	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	200001	
029	0047	PM10 TOTAL 0-10UM	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199907	
029	0047	PM2.5 - LOCAL CONDIT	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	SAMPLE AVG BARO PRES	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	SAMPLE FLOW RATE,CV	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	SAMPLE MAX BARO PRES	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	SAMPLE MIN BARO PRES	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0047	SAMPLE VOLUME	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	KALISPELL	FLATHEAD	199906	
029	0048	CARBON MONOXIDE	2510 HWY 2 EAST	KALISPELL	FLATHEAD	200004	
029	0048	STD DEV HZ WND DIR	2510 HWY 2 EAST	KALISPELL	FLATHEAD	200004	

029	0048	WIND DIRECTION	2510 HWY 2 EAST	KALISPELL	FLATHEAD	200004	
029	0048	WIND SPEED	2510 HWY 2 EAST	KALISPELL	FLATHEAD	200004	
029	0301	LIGHT SCATTER	BRANDT		FLATHEAD	197701	197812
029	0301	OUTDOOR TEMPERATURE	BRANDT		FLATHEAD	197901	197912
029	0301	SOLAR RADIATION	BRANDT		FLATHEAD	197701	197712
029	0301	WIND SPEED	BRANDT		FLATHEAD	197901	197912
029	0302	OUTDOOR TEMPERATURE	GEIS		FLATHEAD	197801	197912
029	0302	SOLAR RADIATION	GEIS		FLATHEAD	197701	197912
029	0302	WIND DIRECTION	GEIS		FLATHEAD	197901	197912
029	0302	WIND SPEED	GEIS		FLATHEAD	197901	197912
029	0304	BAROMETRIC PRESSURE	GLACIER AIRPORT		FLATHEAD	197801	198012
029	0304	DEW POINT	GLACIER AIRPORT		FLATHEAD	197901	197912
029	0304	LIGHT SCATTER	GLACIER AIRPORT		FLATHEAD	197601	198312
029	0304	NITRATE (TSP)	GLACIER AIRPORT		FLATHEAD	197901	198212
029	0304	OUTDOOR TEMPERATURE	GLACIER AIRPORT		FLATHEAD	197901	198312
029	0304	SOLAR RADIATION	GLACIER AIRPORT		FLATHEAD	197601	198312
029	0304	SOLAR RADIATION	GLACIER AIRPORT		FLATHEAD	197901	198012
029	0304	SOLAR RADIATION	GLACIER AIRPORT		FLATHEAD	197901	198112
029	0304	SULFATE (TSP)	GLACIER AIRPORT		FLATHEAD	197901	198212
029	0304	SUSPENDED PARTICULAT	GLACIER AIRPORT		FLATHEAD	197901	198212
029	0304	WIND DIRECTION	GLACIER AIRPORT		FLATHEAD	197601	198312
029	0304	WIND SPEED	GLACIER AIRPORT		FLATHEAD	197601	198312
029	0308	OUTDOOR TEMPERATURE	BIG PRAIRIE		FLATHEAD	198001	198212
029	0308	WIND DIRECTION	BIG PRAIRIE		FLATHEAD	198001	198212
029	0308	WIND SPEED	BIG PRAIRIE		FLATHEAD	198001	198212
029	0707	FLUORIDE(VEGETATION)	COLUMBIA FALLS ALUMINUM-DOANE		FLATHEAD	198201	
029	0708	FLUORIDE(VEGETATION)	COLUMBIA FALLS ALUMINUM-HOFFMAN		FLATHEAD	198201	
029	0709	FLUORIDE(VEGETATION)	COLUMBIA FALLS ALUMINUM-LIDDLE		FLATHEAD	198201	199012
029	0710	FLUORIDE(VEGETATION)	CFAC-NEW LIDDLE,7200 HWY 2E, COL FALLS	COLUMBIA FALLS	FLATHEAD	199105	
029	0711	PM10 - LOCAL CONDITI	CFAC-PM10 AMBIENT,2000 ALUMINUM DRIVE,CF	COLUMBIA FALLS	FLATHEAD	199801	
029	0711	PM10 TOTAL 0-10UM	CFAC-PM10 AMBIENT,2000 ALUMINUM DRIVE,CF	COLUMBIA FALLS	FLATHEAD	199301	199712
029	1002	FLUORIDE(PAPER/GAS)	DEHLBOM RANCH, COLUMBIA FALLS, MT		FLATHEAD	198201	198312
029	1002	SUSPENDED PARTICULAT	DEHLBOM RANCH, COLUMBIA FALLS, MT		FLATHEAD	197301	197612
029	1003	FLUORIDE(PAPER/GAS)	FIERSTEIN RANCH, COLUMBIA FALLS, MT		FLATHEAD	198201	198312
029	1005	FLUORIDE(PAPER/GAS)	(BADROCK SUBSTATION) W. OF HUNGRY HORSE		FLATHEAD	198201	198312
029	1011	SUSPENDED PARTICULAT	MCLAUGHLIN, 222-8TH ST E	KALISPELL	FLATHEAD	197501	197512
029	1012	SUSPENDED PARTICULAT	19 5TH AVE W UNIT 12	KALISPELL	FLATHEAD	197501	197612
029	1013	FLUORIDE(PAPER/GAS)	FISH CREEK, .5 MILE N OF APGAR, MT		FLATHEAD	198201	198312
029	1013	SULFATION RATE	FISH CREEK, .5 MILE N OF APGAR, MT		FLATHEAD	198201	198312
029	1014	FLUORIDE(PAPER/GAS)	LEBRIDGE RANGER STATION 1 MI NORTH		FLATHEAD	198201	198312
029	1014	SULFATION RATE	LEBRIDGE RANGER STATION 1 MI NORTH		FLATHEAD	198201	198312
029	1015	NITRATE (TSP)	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	198001	198412
029	1015	PM10 - LOCAL CONDITI	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	199801	200106
029	1015	PM10 TOTAL 0-10UM	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	198507	198712
029	1015	PM10 TOTAL 0-10UM	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	198704	200106
029	1015	PM10 TOTAL 0-10UM	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	199509	199906
029	1015	SULFATE (TSP)	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	198001	198412
029	1015	SUSPENDED PARTICULAT	UNIVERSAL ATHLETIC, 223 MAIN ST	KALISPELL	FLATHEAD	198001	198712
029	1016	NITRATE (TSP)	510 LASALLE RD. KALISPELL	KALISPELL	FLATHEAD	198201	198212
029	1016	SULFATE (TSP)	510 LASALLE RD. KALISPELL	KALISPELL	FLATHEAD	198201	198212

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
029	1016	SUSPENDED PARTICULAT	510 LASALLE RD. KALISPELL	KALISPELL	FLATHEAD	198001	198212
029	1017	LIGHT SCATTER	COURTHOUSE EAST, 723 5TH AVE EAST	KALISPELL	FLATHEAD	199101	199303
029	1017	NITRATE (TSP)	COURTHOUSE EAST, 723 5TH AVE EAST	KALISPELL	FLATHEAD	198401	198412
029	1017	SULFATE (TSP)	COURTHOUSE EAST, 723 5TH AVE EAST	KALISPELL	FLATHEAD	198401	198412
029	1017	SUSPENDED PARTICULAT	COURTHOUSE EAST, 723 5TH AVE EAST	KALISPELL	FLATHEAD	198301	198412
029	1018	PM10 TOTAL 0-10UM	EAST MAINTENANCE BUILDING, KALISPELL	KALISPELL	FLATHEAD	199310	199508
029	1018	PM10 TOTAL 0-10UM	EAST MAINTENANCE BUILDING, KALISPELL	KALISPELL	FLATHEAD	199310	199509
029	1022	FLUORIDE(PAPER/GAS)	WALTON RANGER STATION .5 MI SE OF ESSEX		FLATHEAD	198201	198312
029	1022	SULFATION RATE	WALTON RANGER STATION .5 MI SE OF ESSEX		FLATHEAD	198201	198312
029	2002	BENZENE SOL ORG(TSP)	GEORGE MAYHEW 39 SUNSET DRIVE	KALISPELL	FLATHEAD	197101	197212
029	2002	CADMIUM (TSP)	GEORGE MAYHEW 39 SUNSET DRIVE	KALISPELL	FLATHEAD	197201	197212
029	2002	LEAD (TSP)	GEORGE MAYHEW 39 SUNSET DRIVE	KALISPELL	FLATHEAD	197201	197212
029	2002	SUSPENDED PARTICULAT	GEORGE MAYHEW 39 SUNSET DRIVE	KALISPELL	FLATHEAD	197101	197412
029	2002	ZINC (TSP)	GEORGE MAYHEW 39 SUNSET DRIVE	KALISPELL	FLATHEAD	197201	197212
029	2003	FLUORIDE(PAPER/GAS)	SOUTH SLOPE OF APGAR MOUNTAIN		FLATHEAD	198201	198312
029	2003	SULFATION RATE	SOUTH SLOPE OF APGAR MOUNTAIN		FLATHEAD	198201	198312
029	2005	FLUORIDE(PAPER/GAS)	FLATHEAD RANGER STATION		FLATHEAD	198201	198312
029	2005	SULFATION RATE	FLATHEAD RANGER STATION		FLATHEAD	198201	198312
029	2013	SUSPENDED PARTICULAT	140 7TH AVE. WEST KALISPELL, MONTANA	KALISPELL	FLATHEAD	197701	197812
029	2014	NITRATE (TSP)	STROM RESIDENCE, 534 FOURTH AVE EAST	KALISPELL	FLATHEAD	197901	198012
029	2014	SULFATE (TSP)	STROM RESIDENCE, 534 FOURTH AVE EAST	KALISPELL	FLATHEAD	197901	198012
029	2014	SUSPENDED PARTICULAT	STROM RESIDENCE, 534 FOURTH AVE EAST	KALISPELL	FLATHEAD	197801	198012
029	8001	OUTDOOR TEMPERATURE	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	OZONE	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	OZONE	GLACIER NATIONAL PARK		FLATHEAD	198904	199503
029	8001	RAIN/MELT PRECIP	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	RELATIVE HUMIDITY	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	RESULTANT DIRECTION	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	RESULTANT SPEED	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	SOLAR RADIATION	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	STD DEV HZ WND DIR	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	TEMPERATURE DIFFEREN	GLACIER NATIONAL PARK		FLATHEAD	198901	
029	8001	WIND SPEED	GLACIER NATIONAL PARK		FLATHEAD	198901	
031	0001	ALUMINUM (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	ARSENIC (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	CADMIUM (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	CHROMIUM (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	COPPER (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	IRON (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	LEAD (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	MANGANESE (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812

031	0001	NICKEL (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	NITRATE (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197912
031	0001	SULFATE (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197912
031	0001	SUSPENDED PARTICULAT	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	198212
031	0001	VANADIUM (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0001	ZINC (TSP)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	BOZEMAN	GALLATIN	197801	197812
031	0002	PM10 - LOCAL CONDITI	CITY BUILDING, 34 NORTH ROUSE	BOZEMAN	GALLATIN	199801	
031	0002	PM10 TOTAL 0-10UM	CITY BUILDING, 34 NORTH ROUSE	BOZEMAN	GALLATIN	198507	198712
031	0002	PM10 TOTAL 0-10UM	CITY BUILDING, 34 NORTH ROUSE	BOZEMAN	GALLATIN	198704	
031	0002	SULFATE (TSP)	CITY BUILDING, 34 NORTH ROUSE	BOZEMAN	GALLATIN	198201	198212
031	0002	SUSPENDED PARTICULAT	CITY BUILDING, 34 NORTH ROUSE	BOZEMAN	GALLATIN	198001	198712
031	0003	SUSPENDED PARTICULAT	MSU FAMILY HOUSING, 19TH & COLLEGE ST	BOZEMAN	GALLATIN	198001	198112
031	0004	OUTDOOR TEMPERATURE	BIG SKY GOLF COURSE		GALLATIN	198201	198312
031	0004	WIND DIRECTION	BIG SKY GOLF COURSE		GALLATIN	198201	198312
031	0004	WIND SPEED	BIG SKY GOLF COURSE		GALLATIN	198201	198312
031	0005	SUSPENDED PARTICULAT	WHITTIER SCHOOL, 515 N 5TH AVENUE	BOZEMAN	GALLATIN	198101	198512
031	0007	SUSPENDED PARTICULAT	SOURDOUGH CREEK, 211 EAST MASON STREET	BOZEMAN	GALLATIN	198501	198712
031	0008	AMBIENT AVG TEMPERAT	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	AMBIENT MAX TEMPERAT	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	AMBIENT MIN TEMPERAT	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	ELAPSED SAMPLE TIME	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	PM10 - LOCAL CONDITI	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	199801	
031	0008	PM10 TOTAL 0-10UM	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	199110	
031	0008	PM2.5 - LOCAL CONDIT	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	SAMPLE AVG BARO PRES	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	SAMPLE FLOW RATE,CV	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	SAMPLE MAX BARO PRES	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	SAMPLE MIN BARO PRES	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0008	SAMPLE VOLUME	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD		GALLATIN	200001	
031	0009	PM10 TOTAL 0-10UM	W.YELLOWSTONE; YNP WEST ENTRANCE		GALLATIN	199410	199503
031	0012	PM10 - LOCAL CONDITI	FIREHOLE,W YLLSTN(FIRHOLE & DUNRAVEN)		GALLATIN	199801	
031	0012	PM10 TOTAL 0-10UM	FIREHOLE,W YLLSTN(FIRHOLE & DUNRAVEN)		GALLATIN	199511	
031	0013	CARBON MONOXIDE	YLLSTN NAT'L PARK WEST ENTRANCE STATION		GALLATIN	199810	
031	0013	STD DEV HZ WND DIR	YLLSTN NAT'L PARK WEST ENTRANCE STATION		GALLATIN	199811	
031	0013	WIND DIRECTION	YLLSTN NAT'L PARK WEST ENTRANCE STATION		GALLATIN	199811	
031	0013	WIND SPEED	YLLSTN NAT'L PARK WEST ENTRANCE STATION		GALLATIN	199810	
031	1001	BENZENE SOL ORG(TSP)	W. GATE GARAGE,BOX 310,W. YELLOWSTONE		GALLATIN	197201	197212
031	1001	SUSPENDED PARTICULAT	W. GATE GARAGE,BOX 310,W. YELLOWSTONE		GALLATIN	197201	197212
031	1003	SUSPENDED PARTICULAT	KOBER RESIDENCE,611 2ND AVE,THREE FORKS		GALLATIN	197701	197812
033	0002	SUSPENDED PARTICULAT	RANDY BILLINGS RANCH, JORDAN		GARFIELD	198101	198412
035	0001	AMMONIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	196512
035	0001	AMMONIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196601	197712
035	0001	ARSENIC (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	BARIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	BENZENE SOL ORG(TSP)	ST MARY RANGER STATION (BABB)		GLACIER	195801	197012
035	0001	BENZO(A)PYRENE/TSP	ST MARY RANGER STATION (BABB)		GLACIER	196601	197712
035	0001	BERYLLIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	BERYLLIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	CADMIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	196712
035	0001	CADMIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196801	197612



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
035	0001	CADMIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	CHROMIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	CHROMIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	COBALT (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	COBALT (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	COPPER (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	COPPER (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	FLUORIDE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196601	197012
035	0001	IRON (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	IRON (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	LEAD (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197512
035	0001	LEAD (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197501	198212
035	0001	MANGANESE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	MANGANESE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	MOLYBDENUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	NICKEL (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	NICKEL (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	NITRATE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196201	196512
035	0001	NITRATE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196601	197812
035	0001	NITROGEN DIOXIDE	ST MARY RANGER STATION (BABB)		GLACIER	197301	197412
035	0001	NITROGEN DIOXIDE	ST MARY RANGER STATION (BABB)		GLACIER	197401	197407
035	0001	NITROGEN DIOXIDE	ST MARY RANGER STATION (BABB)		GLACIER	197401	197812
035	0001	RADACTGROSS-BETA/TSP	ST MARY RANGER STATION (BABB)		GLACIER	195801	196612
035	0001	SULFATE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196201	196512
035	0001	SULFATE (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196601	197812
035	0001	SULFUR DIOXIDE	ST MARY RANGER STATION (BABB)		GLACIER	196901	197312
035	0001	SULFUR DIOXIDE	ST MARY RANGER STATION (BABB)		GLACIER	197401	197712
035	0001	SUSPENDED PARTICULAT	ST MARY RANGER STATION (BABB)		GLACIER	195801	197312
035	0001	SUSPENDED PARTICULAT	ST MARY RANGER STATION (BABB)		GLACIER	197401	197812
035	0001	TIN (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197212
035	0001	TITANIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	VANADIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	197612
035	0001	VANADIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0001	YTTRIUM (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196801	196812
035	0001	ZINC (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	196501	196712
035	0001	ZINC (TSP)	ST MARY RANGER STATION (BABB)		GLACIER	197701	198212
035	0007	CADMIUM (TSP)	FIRE WEATHER STATION		GLACIER	198001	198212
035	0007	FLUORIDE(PAPER/GAS)	FIRE WEATHER STATION		GLACIER	198001	198212
035	0007	FLUORIDE(PAPER/GAS)	FIRE WEATHER STATION		GLACIER	198001	198312
035	0007	LEAD (TSP)	FIRE WEATHER STATION		GLACIER	198001	198212
035	0007	NITRATE (TSP)	FIRE WEATHER STATION		GLACIER	198001	198512

035	0007	SULFATE (TSP)	FIRE WEATHER STATION		GLACIER	198001	198512
035	0007	SULFATION RATE	FIRE WEATHER STATION		GLACIER	198201	198312
035	0007	SUSPENDED PARTICULAT	FIRE WEATHER STATION		GLACIER	198001	198512
035	0010	ARSENIC (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	BARIUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	BERYLLIUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	CADMIUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	CHROMIUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	COBALT (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	COPPER (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	FLUORIDE(PAPER/GAS)	ST. MARY RANGER STATION		GLACIER	198201	198212
035	0010	FLUORIDE(PAPER/GAS)	ST. MARY RANGER STATION		GLACIER	198201	198312
035	0010	IRON (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	LEAD (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	MANGANESE (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	MOLYBDENUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	NICKEL (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	NITRATE (TSP)	ST. MARY RANGER STATION		GLACIER	198001	198512
035	0010	SULFATE (TSP)	ST. MARY RANGER STATION		GLACIER	198001	198512
035	0010	SULFATION RATE	ST. MARY RANGER STATION		GLACIER	198201	198312
035	0010	SUSPENDED PARTICULAT	ST. MARY RANGER STATION		GLACIER	198201	198512
035	0010	VANADIUM (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0010	ZINC (TSP)	ST. MARY RANGER STATION		GLACIER	198301	198512
035	0019	SULFATION RATE	MANY GLACIER PARK ENTRANCE		GLACIER	198201	198312
035	0020	SULFATION RATE	TWO MEDICINE PARK ENTRANCE		GLACIER	198201	198312
035	0021	DUSTFALL COMBUSTBLE	HIGGINS DUSTFALL,109 2ND ST NE,CUT BANK	CUT BANK	GLACIER	199203	199610
035	0021	TOTAL DUSTFALL	HIGGINS DUSTFALL,109 2ND ST NE,CUT BANK	CUT BANK	GLACIER	199203	199610
035	0101	PM10 - LOCAL CONDITI	BLACKFEET TRANSIT BLDG BLOCK 34, BROWNIN		GLACIER	199801	
035	0101	PM10 TOTAL 0-10UM	BLACKFEET TRANSIT BLDG BLOCK 34, BROWNIN		GLACIER	199401	
035	0102	LAPSE RATE	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199410
035	0102	OUTDOOR TEMPERATURE	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199711
035	0102	PM10 TOTAL 0-10UM	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199705
035	0102	SOLAR RADIATION	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199510
035	0102	STD DEV HZ WND DIR	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199711
035	0102	TEMPERATURE DIFFEREN	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199510
035	0102	WIND DIRECTION	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199711
035	0102	WIND SPEED	BLACKFEET INDUSTRIAL PARK, BROWNING MT		GLACIER	199401	199711
035	0103	LAPSE RATE	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	199410
035	0103	OUTDOOR TEMPERATURE	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	
035	0103	SOLAR RADIATION	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	199510
035	0103	STD DEV HZ WND DIR	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	
035	0103	TEMPERATURE DIFFEREN	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	199510
035	0103	WIND DIRECTION	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	
035	0103	WIND SPEED	410 LINHOE ST.; EAST GLACIER, MT 59434		GLACIER	199401	
035	0104	PM10 - LOCAL CONDITI	518 US HIGHWAY 2; EAST GLACIER, MT		GLACIER	199801	
035	0104	PM10 TOTAL 0-10UM	518 US HIGHWAY 2; EAST GLACIER, MT		GLACIER	199504	
035	0105	OUTDOOR TEMPERATURE	BABB SCHOOL		GLACIER	199802	
035	0105	PM10 - LOCAL CONDITI	BABB SCHOOL		GLACIER	199802	
035	0105	PM10 TOTAL 0-10UM	BABB SCHOOL		GLACIER	199802	
035	0105	STD DEV HZ WND DIR	BABB SCHOOL		GLACIER	199802	

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
035	0105	WIND DIRECTION	BABB SCHOOL		GLACIER	199802	
035	0105	WIND SPEED	BABB SCHOOL		GLACIER	199802	
039	0005	BENZENE SOL ORG(TSP)	MCKINLEY RES (PHILLIPSBURG)		GRANITE	197201	197212
039	0005	SUSPENDED PARTICULAT	MCKINLEY RES (PHILLIPSBURG)		GRANITE	197201	198012
041	0001	SUSPENDED PARTICULAT	CITY BUILDING, 520 4TH ST	HAVRE	HILL	198001	198312
043	0004	ARSENIC (TSP)	KLEFFNER RESIDENCE STATION #4		JEFFERSON	197101	197112
043	0004	CADMIUM (TSP)	KLEFFNER RESIDENCE STATION #4		JEFFERSON	197101	197112
043	0004	LEAD (TSP)	KLEFFNER RESIDENCE STATION #4		JEFFERSON	197101	197112
043	0004	SUSPENDED PARTICULAT	KLEFFNER RESIDENCE STATION #4		JEFFERSON	197101	197112
043	0004	ZINC (TSP)	KLEFFNER RESIDENCE STATION #4		JEFFERSON	197101	197112
043	0007	SULFUR DIOXIDE	MCCLELLAN CREEK ROAD SE OF EAST HELENA		JEFFERSON	197201	197512
043	0010	SUSPENDED PARTICULAT	GOLDEN SUNLIGHT-DOWNWIND 2000,WHITEHALL		JEFFERSON	198108	198708
043	0011	ARSENIC (PM10)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199112
043	0011	ARSENIC (TSP)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199007	199009
043	0011	CADMIUM (PM10)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199112
043	0011	CADMIUM (TSP)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199007	199009
043	0011	CHROMIUM (PM10)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199112
043	0011	CHROMIUM (TSP)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199007	199009
043	0011	LEAD (PM10)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199112
043	0011	LEAD (TSP)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199007	199009
043	0011	OUTDOOR TEMPERATURE	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	198301	199203
043	0011	PM10 - LOCAL CONDITI	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199801	
043	0011	PM10 TOTAL 0-10UM	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199712
043	0011	STD DEV HZ WND DIR	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199010	199203
043	0011	SUSPENDED PARTICULAT	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	198108	199009
043	0011	WIND DIRECTION	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	198401	199203
043	0011	WIND SPEED	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	198401	199203
043	0011	ZINC (PM10)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199009	199112
043	0011	ZINC (TSP)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL		JEFFERSON	199007	199009
043	0012	ARSENIC (PM10)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199112
043	0012	ARSENIC (TSP)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199012
043	0012	CADMIUM (PM10)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199112
043	0012	CADMIUM (TSP)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199012
043	0012	CHROMIUM (PM10)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199112
043	0012	CHROMIUM (TSP)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199012
043	0012	LEAD (PM10)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199112
043	0012	LEAD (TSP)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199007	199012
043	0012	PM10 - LOCAL CONDITI	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199801	
043	0012	PM10 TOTAL 0-10UM	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	199009	199712
043	0012	SUSPENDED PARTICULAT	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	198301	199009
043	0012	SUSPENDED PARTICULAT	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL		JEFFERSON	198710	199009

043	0012	ZINC (PM10)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	JEFFERSON	199007	199112
043	0012	ZINC (TSP)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	JEFFERSON	199007	199012
043	0013	SUSPENDED PARTICULAT	CORBIN #1, CORBIN, MT	JEFFERSON	198401	198412
043	0014	SUSPENDED PARTICULAT	CORBIN #2, CORBIN, MT	JEFFERSON	198401	198412
043	0015	SUSPENDED PARTICULAT	CORBIN #3, CORBIN, MT	JEFFERSON	198401	198412
043	0015	WIND DIRECTION	CORBIN #3, CORBIN, MT	JEFFERSON	198401	198412
043	0015	WIND SPEED	CORBIN #3, CORBIN, MT	JEFFERSON	198401	198412
043	0017	WIND DIRECTION	WICKES - 2.5 MI NW	JEFFERSON	198401	198412
043	0017	WIND SPEED	WICKES - 2.5 MI NW	JEFFERSON	198401	198412
043	0019	ARSENIC (PM10)	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	198801	199112
043	0019	LEAD (PM10)	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	198801	199112
043	0019	PM10 - LOCAL CONDITI	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	199801	
043	0019	PM10 TOTAL 0-10UM	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	198712	199112
043	0019	PM10 TOTAL 0-10UM	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	198712	199712
043	0019	SUSPENDED PARTICULAT	MONTANA TUNNELS-RANCH SITE #1A	JEFFERSON	198602	198712
043	0020	ARSENIC (TSP)	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198901	199112
043	0020	LEAD (TSP)	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198901	199112
043	0020	OUTDOOR TEMPERATURE	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	199004	199203
043	0020	PM10 - LOCAL CONDITI	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	199801	199907
043	0020	PM10 TOTAL 0-10UM	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198603	199712
043	0020	STD DEV HZ WND DIR	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	199004	199203
043	0020	SUSPENDED PARTICULAT	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198602	199205
043	0020	WIND DIRECTION	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198603	199203
043	0020	WIND SPEED	MONTANA TUNNELS-WICKES FLAT #2	JEFFERSON	198603	199203
043	0021	SUSPENDED PARTICULAT	MONTANA TUNNELS-MINA MINE #3	JEFFERSON	198603	198903
043	0022	ARSENIC (TSP)	MONTANA TUNNELS-CLANCY CREEK #4	JEFFERSON	198901	199112
043	0022	LEAD (TSP)	MONTANA TUNNELS-CLANCY CREEK #4	JEFFERSON	198901	199112
043	0022	PM10 - LOCAL CONDITI	MONTANA TUNNELS-CLANCY CREEK #4	JEFFERSON	199801	
043	0022	PM10 TOTAL 0-10UM	MONTANA TUNNELS-CLANCY CREEK #4	JEFFERSON	199205	199712
043	0022	SUSPENDED PARTICULAT	MONTANA TUNNELS-CLANCY CREEK #4	JEFFERSON	198603	199205
043	0023	ARSENIC (TSP)	MONTANA TUNNELS-TAILINGS DAM #5	JEFFERSON	198901	199112
043	0023	LEAD (TSP)	MONTANA TUNNELS-TAILINGS DAM #5	JEFFERSON	198901	199112
043	0023	PM10 TOTAL 0-10UM	MONTANA TUNNELS-TAILINGS DAM #5	JEFFERSON	199205	199303
043	0023	SUSPENDED PARTICULAT	MONTANA TUNNELS-TAILINGS DAM #5	JEFFERSON	198802	199205
043	0024	ARSENIC (PM10)	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199012
043	0024	CADMIUM (PM10)	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199012
043	0024	CHROMIUM (PM10)	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199012
043	0024	LEAD (PM10)	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199012
043	0024	PM10 TOTAL 0-10UM	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199112
043	0024	STD DEV HZ WND DIR	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199112
043	0024	WIND DIRECTION	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199112
043	0024	WIND SPEED	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199112
043	0024	ZINC (PM10)	GOLD FIELDS MINING-BOULDER FLATS #1	JEFFERSON	198911	199012
043	0025	ARSENIC (PM10)	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199012
043	0025	CADMIUM (PM10)	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199012
043	0025	CHROMIUM (PM10)	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199012
043	0025	LEAD (PM10)	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199012
043	0025	PM10 TOTAL 0-10UM	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199112
043	0025	ZINC (PM10)	GOLD FIELDS MINING-ELKHORN SITE #2	JEFFERSON	198911	199012
043	0026	ARSENIC (PM10)	GOLD FIELDS MINING-HEAGEN MINE #3	JEFFERSON	198912	199012

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
043	0026	CADMIUM (PM10)	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198912	199012
043	0026	CHROMIUM (PM10)	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198912	199012
043	0026	LEAD (PM10)	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198912	199012
043	0026	OUTDOOR TEMPERATURE	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198911	199112
043	0026	PM10 TOTAL 0-10UM	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198911	199112
043	0026	STD DEV HZ WND DIR	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198911	199112
043	0026	WIND DIRECTION	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198911	199112
043	0026	WIND SPEED	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198911	199112
043	0026	ZINC (PM10)	GOLD FIELDS MINING-HEAGEN MINE #3		JEFFERSON	198912	199012
043	0709	OUTDOOR TEMPERATURE	PEGASUS GOLD-BASIN CR MINE, UPWIND #1		JEFFERSON	198901	199012
043	0709	PM10 TOTAL 0-10UM	PEGASUS GOLD-BASIN CR MINE, UPWIND #1		JEFFERSON	198808	199001
043	0709	STD DEV HZ WND DIR	PEGASUS GOLD-BASIN CR MINE, UPWIND #1		JEFFERSON	198908	199012
043	0709	WIND DIRECTION	PEGASUS GOLD-BASIN CR MINE, UPWIND #1		JEFFERSON	198704	199012
043	0709	WIND SPEED	PEGASUS GOLD-BASIN CR MINE, UPWIND #1		JEFFERSON	198704	199012
043	0710	PM10 TOTAL 0-10UM	PEGASUS GOLD-BASIN CR MINE, DOWNWIND #2		JEFFERSON	198808	198912
043	0710	SUSPENDED PARTICULAT	PEGASUS GOLD-BASIN CR MINE, DOWNWIND #2		JEFFERSON	198808	198907
043	0711	PM10 - LOCAL CONDITI	PEGASUS GOLD-BASIN CR,UPWIND #3,RIMINI		JEFFERSON	199801	199811
043	0711	PM10 TOTAL 0-10UM	PEGASUS GOLD-BASIN CR,UPWIND #3,RIMINI		JEFFERSON	199002	199712
043	0902	SULFUR DIOXIDE	SADDLE MOUNTAIN		JEFFERSON	197301	197412
043	0902	SULFUR DIOXIDE	SADDLE MOUNTAIN		JEFFERSON	197301	197512
043	0902	SULFUR DIOXIDE	SADDLE MOUNTAIN		JEFFERSON	197401	197712
043	0903	ALUMINUM (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	ARSENIC (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	CADMIUM (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	CHROMIUM (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	COPPER (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	IRON (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	LEAD (TSP)	MICROWAVE SITE		JEFFERSON	197701	199112
043	0903	MANGANESE (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	NICKEL (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	NITRATE (TSP)	MICROWAVE SITE		JEFFERSON	197701	197712
043	0903	NITRATE (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	SULFATE (TSP)	MICROWAVE SITE		JEFFERSON	197701	197912
043	0903	SULFATION RATE	MICROWAVE SITE		JEFFERSON	197801	198112
043	0903	SULFUR DIOXIDE	MICROWAVE SITE		JEFFERSON	197301	197407
043	0903	SULFUR DIOXIDE	MICROWAVE SITE		JEFFERSON	197301	197912
043	0903	SULFUR DIOXIDE	MICROWAVE SITE		JEFFERSON	197401	197912
043	0903	SULFUR DIOXIDE	MICROWAVE SITE		JEFFERSON	197605	
043	0903	SUSPENDED PARTICULAT	MICROWAVE SITE		JEFFERSON	197401	199112
043	0903	VANADIUM (TSP)	MICROWAVE SITE		JEFFERSON	197801	197912
043	0903	WIND DIRECTION	MICROWAVE SITE		JEFFERSON	197801	197912

043	0903	WIND SPEED	MICROWAVE SITE	JEFFERSON	197801	197912
043	0903	ZINC (TSP)	MICROWAVE SITE	JEFFERSON	197801	197912
043	0904	SULFATION RATE	BROUDY RANCH, MONTANA CITY, MT	JEFFERSON	197801	198112
043	0904	SULFUR DIOXIDE	BROUDY RANCH, MONTANA CITY, MT	JEFFERSON	197701	198112
043	0905	LEAD (TSP)	MONTANA CITY SCHOOL	JEFFERSON	198101	198512
043	0905	SUSPENDED PARTICULAT	MONTANA CITY SCHOOL	JEFFERSON	198101	198912
043	0906	SULFUR DIOXIDE	ASARCO-HIGHWAY 518, EAST HELENA	JEFFERSON	198612	198912
043	0906	WIND DIRECTION	ASARCO-HIGHWAY 518, EAST HELENA	JEFFERSON	198801	198812
043	0906	WIND SPEED	ASARCO-HIGHWAY 518, EAST HELENA	JEFFERSON	198801	198812
043	0907	SULFUR DIOXIDE	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	JEFFERSON	198601	198812
043	0907	WIND DIRECTION	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	JEFFERSON	198601	198812
043	0907	WIND SPEED	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	JEFFERSON	198601	198812
043	0908	SULFUR DIOXIDE	ASARCO-ASH GROVE SIDING, MONTANA CITY	JEFFERSON	198909	199706
043	0909	OUTDOOR TEMPERATURE	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199706
043	0909	RESULTANT DIRECTION	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199601
043	0909	RESULTANT SPEED	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199601
043	0909	STD DEV HZ WND DIR	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199706
043	0909	STD DEV VT WND SPD	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199412
043	0909	SULFUR DIOXIDE	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199706
043	0909	VERTICAL WIND SPEED	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199412
043	0909	WIND DIRECTION	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199412
043	0909	WIND DIRECTION	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199706
043	0909	WIND SPEED	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	JEFFERSON	199304	199706
043	0910	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #3, E. HELENA	JEFFERSON	199304	199706
043	0911	OUTDOOR TEMPERATURE	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	JEFFERSON	199709	
043	0911	STD DEV HZ WND DIR	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	JEFFERSON	199709	
043	0911	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	JEFFERSON	199304	
043	0911	WIND DIRECTION	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	JEFFERSON	199709	
043	0911	WIND SPEED	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	JEFFERSON	199709	
043	0912	OUTDOOR TEMPERATURE	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199706
043	0912	RESULTANT DIRECTION	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199601
043	0912	RESULTANT SPEED	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199601
043	0912	STD DEV HZ WND DIR	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199706
043	0912	STD DEV VT WND SPD	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199412
043	0912	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199706
043	0912	VERTICAL WIND SPEED	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199412
043	0912	WIND DIRECTION	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199412
043	0912	WIND DIRECTION	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199706
043	0912	WIND SPEED	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	JEFFERSON	199304	199706
043	0913	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #6, E. HELENA	JEFFERSON	199304	
043	0914	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #7, E. HELENA	JEFFERSON	199304	199706
043	0915	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #8, E. HELENA	JEFFERSON	199304	199706
043	0916	SULFUR DIOXIDE	ASARCO-MCCLELLAN CREEK RD #9, E. HELENA	JEFFERSON	199304	199706
047	0007	SUSPENDED PARTICULAT	JH HANSON RESIDENCE NEAR POLSON	LAKE	197301	197312
047	0008	SUSPENDED PARTICULAT	ANKOR RASMUSSEN RESIDENCE	LAKE	197301	197312
047	0010	NITRATE (TSP)	MARY LOZAR RESIDENCE, E OF POLSON, MT	LAKE	197901	198312
047	0010	OUTDOOR TEMPERATURE	MARY LOZAR RESIDENCE, E OF POLSON, MT	LAKE	198001	198312
047	0010	SULFATE (TSP)	MARY LOZAR RESIDENCE, E OF POLSON, MT	LAKE	197901	198312
047	0010	SUSPENDED PARTICULAT	MARY LOZAR RESIDENCE, E OF POLSON, MT	LAKE	197901	198312
047	0010	WIND DIRECTION	MARY LOZAR RESIDENCE, E OF POLSON, MT	LAKE	198001	198312

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
047	0010	WIND SPEED	MARY LOZAR RESIDENCE, E OF POLSON, MT		LAKE	198001	198312
047	0011	NITRATE (TSP)	RONAN, MT		LAKE	197901	198012
047	0011	SULFATE (TSP)	RONAN, MT		LAKE	197901	198012
047	0011	SUSPENDED PARTICULAT	RONAN, MT		LAKE	197801	198112
047	0012	LIGHT SCATTER	RONAN-NINEPIPE		LAKE	198101	198312
047	0012	NITRATE (TSP)	RONAN-NINEPIPE		LAKE	198001	198312
047	0012	SULFATE (TSP)	RONAN-NINEPIPE		LAKE	198001	198312
047	0012	SUSPENDED PARTICULAT	RONAN-NINEPIPE		LAKE	198001	198312
047	0012	WIND DIRECTION	RONAN-NINEPIPE		LAKE	198001	198312
047	0012	WIND SPEED	RONAN-NINEPIPE		LAKE	198001	198312
047	0013	AMBIENT AVG TEMPERAT	RONAN PARK		LAKE	200001	
047	0013	AMBIENT MAX TEMPERAT	RONAN PARK		LAKE	200001	
047	0013	AMBIENT MIN TEMPERAT	RONAN PARK		LAKE	200001	
047	0013	ATMOSPHERIC STABILTY	RONAN PARK		LAKE	199504	199811
047	0013	ELAPSED SAMPLE TIME	RONAN PARK		LAKE	200001	
047	0013	PM10 - LOCAL CONDITI	RONAN PARK		LAKE	199801	
047	0013	PM10 TOTAL 0-10UM	RONAN PARK		LAKE	198808	
047	0013	PM2.5 - LOCAL CONDIT	RONAN PARK		LAKE	200001	
047	0013	SAMPLE AVG BARO PRES	RONAN PARK		LAKE	200001	
047	0013	SAMPLE FLOW RATE,CV	RONAN PARK		LAKE	200001	
047	0013	SAMPLE MAX BARO PRES	RONAN PARK		LAKE	200001	
047	0013	SAMPLE MIN BARO PRES	RONAN PARK		LAKE	200001	
047	0013	SAMPLE VOLUME	RONAN PARK		LAKE	200001	
047	0013	SIZE FRACTINTD PARTI	RONAN PARK		LAKE	198101	198312
047	0013	STD DEV HZ WND DIR	RONAN PARK		LAKE	199101	199811
047	0013	SUSPENDED PARTICULAT	RONAN PARK		LAKE	198101	198912
047	0013	SUSPENDED PARTICULAT	RONAN PARK		LAKE	198401	198812
047	0013	WIND DIRECTION	RONAN PARK		LAKE	199101	199811
047	0013	WIND SPEED	RONAN PARK		LAKE	199101	199811
047	0014	SUSPENDED PARTICULAT	SOUTHWEST ST. IGNATIUS		LAKE	198101	198712
047	0015	SIZE FRACTINTD PARTI	GYM ROOF IN EAST ARLEE		LAKE	198101	198112
047	0015	SUSPENDED PARTICULAT	GYM ROOF IN EAST ARLEE		LAKE	198101	198112
047	0015	SUSPENDED PARTICULAT	GYM ROOF IN EAST ARLEE		LAKE	198101	198212
047	0016	SUSPENDED PARTICULAT	CENTRAL EVARO		LAKE	198101	198112
047	0017	NITRATE (TSP)	SWAN RIVER YOUTH FOREST CAMP		LAKE	198201	198212
047	0017	SULFATE (TSP)	SWAN RIVER YOUTH FOREST CAMP		LAKE	198201	198212
047	0017	SUSPENDED PARTICULAT	SWAN RIVER YOUTH FOREST CAMP		LAKE	198201	198212
047	0018	SIZE FRACTINTD PARTI	POW WOW GROUNDS #2		LAKE	198101	198312
047	0018	SUSPENDED PARTICULAT	POW WOW GROUNDS #2		LAKE	198101	198412
047	0019	FLUORIDE(PAPER/GAS)	BLUE BAY 17 MILES SO. OF BIGFORK, MT		LAKE	198201	198212
047	0019	SULFATION RATE	BLUE BAY 17 MILES SO. OF BIGFORK, MT		LAKE	198201	198212

047	0020	FLUORIDE(PAPER/GAS)	BOULDER 10 MILES NE OF POLSON, MT		LAKE	198201	198212
047	0020	SULFATION RATE	BOULDER 10 MILES NE OF POLSON, MT		LAKE	198201	198212
047	0021	FLUORIDE(PAPER/GAS)	NARROWS 9 MI. NE OF POLSON, MT		LAKE	198201	198212
047	0021	SULFATION RATE	NARROWS 9 MI. NE OF POLSON, MT		LAKE	198201	198212
047	0022	FLUORIDE(PAPER/GAS)	JETLE 7 MI. NE OF POLSON, MT		LAKE	198201	198212
047	0022	SULFATION RATE	JETLE 7 MI. NE OF POLSON, MT		LAKE	198201	198212
047	0023	FLUORIDE(PAPER/GAS)	SUNNY SLOPE II 6 MI. NO. OF POLSON, MT		LAKE	198201	198212
047	0023	SULFATION RATE	SUNNY SLOPE II 6 MI. NO. OF POLSON, MT		LAKE	198201	198212
047	0025	FLUORIDE(PAPER/GAS)	BIG SAM 6 MI. NO. OF EVARO, MT		LAKE	198201	198212
047	0025	SULFATION RATE	BIG SAM 6 MI. NO. OF EVARO, MT		LAKE	198201	198212
047	0026	FLUORIDE(PAPER/GAS)	SADDLE MTN #1 4 MI. W. OF ARLEE, MT		LAKE	198201	198212
047	0026	SULFATION RATE	SADDLE MTN #1 4 MI. W. OF ARLEE, MT		LAKE	198201	198212
047	0027	FLUORIDE(PAPER/GAS)	SADDLE MTN #2 4 MI. W. OF ARLEE, MT		LAKE	198201	198212
047	0027	SULFATION RATE	SADDLE MTN #2 4 MI. W. OF ARLEE, MT		LAKE	198201	198212
047	0028	AMBIENT AVG TEMPERAT	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	AMBIENT MAX TEMPERAT	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	AMBIENT MIN TEMPERAT	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	ATMOSPHERIC STABILTY	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	199504	
047	0028	ELAPSED SAMPLE TIME	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	LIGHT SCATTER	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198801	199110
047	0028	OUTDOOR TEMPERATURE	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198601	
047	0028	PM10 - LOCAL CONDITI	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	199801	
047	0028	PM10 - LOCAL CONDITI	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	199801	200001
047	0028	PM10 TOTAL 0-10UM	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198505	198712
047	0028	PM10 TOTAL 0-10UM	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198808	
047	0028	PM10 TOTAL 0-10UM	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198808	199012
047	0028	PM10 TOTAL 0-10UM	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	199407	
047	0028	PM10 TOTAL 0-10UM	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	199801	199912
047	0028	PM2.5 - LOCAL CONDIT	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	SAMPLE AVG BARO PRES	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	SAMPLE FLOW RATE,CV	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	SAMPLE MAX BARO PRES	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	SAMPLE MIN BARO PRES	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	SAMPLE VOLUME	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	200001	
047	0028	STD DEV HZ WND DIR	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198601	
047	0028	SUSPENDED PARTICULAT	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198401	198912
047	0028	WIND DIRECTION	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198601	
047	0028	WIND SPEED	POLSON SADDLE SHOP, 1ST STREET & 4TH AVE	POLSON	LAKE	198601	
047	0029	SUSPENDED PARTICULAT	NEAR JCT OF HIWAY 93 AND RTE 28		LAKE	198601	198812
047	0030	PM10 TOTAL 0-10UM	FIRE STATION-POLSON, 1ST AVE & KOOTENAI	POLSON	LAKE	199207	199307
047	0031	PM10 TOTAL 0-10UM	US HWY 93 SOUTH AND TERRACE LAKE ROAD		LAKE	199303	199412
047	0032	PM10 - LOCAL CONDITI	CS&KT TRIBAL COMPLEX		LAKE	199801	199811
047	0032	PM10 TOTAL 0-10UM	CS&KT TRIBAL COMPLEX		LAKE	199601	199811
047	0033	ATMOSPHERIC STABILTY	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199901	
047	0033	OUTDOOR TEMPERATURE	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199901	
047	0033	PM10 - LOCAL CONDITI	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199811	
047	0033	PM10 TOTAL 0-10UM	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199811	
047	0033	STD DEV HZ WND DIR	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199901	
047	0033	WIND DIRECTION	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199901	
047	0033	WIND SPEED	333 ST. MARY'S DR. RD, ST IGNATIUS, MT		LAKE	199901	



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
049	0001	AMMONIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195701	197712
049	0001	AMMONIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	196512
049	0001	ARSENIC (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	BARIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	BENZENE SOL ORG(TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195701	197012
049	0001	BENZO(A)PYRENE/TSP	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196601	197012
049	0001	BERYLLIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	BERYLLIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	BERYLLIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	CADMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196712
049	0001	CADMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196801	197612
049	0001	CADMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	CHROMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	CHROMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	CHROMIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	COBALT (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	COBALT (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	COBALT (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	COPPER (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	COPPER (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	COPPER (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	DYED FABRIC #3	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	DYED FABRIC #5	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	DYED FABRIC #6	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	DYED FABRIC #7	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	FLUORIDE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196601	197012
049	0001	IRON (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	IRON (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	IRON (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	LEAD (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	LEAD (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197512
049	0001	LEAD (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197501	197512
049	0001	LEAD (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	MANGANESE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	MANGANESE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	MANGANESE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	MOLYBDENUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	NICKEL (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	NICKEL (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	NICKEL (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	NITRATE (PM10)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	199609	199706

049	0001	NITRATE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195701	197712
049	0001	NITRATE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195801	196512
049	0001	NYLON DETRIORATN	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	PM10 TOTAL 0-10UM	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	198501	198712
049	0001	PM10 TOTAL 0-10UM	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	198505	198712
049	0001	PM10 TOTAL 0-10UM	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	198704	199012
049	0001	PM10 TOTAL 0-10UM	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	198704	199709
049	0001	RADACTGROSS-BETA/TSP	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195801	196612
049	0001	RUBBER CRACKING	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	SILVER TARNISHING	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	SULFATE (PM10)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	199609	199706
049	0001	SULFATE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195701	197712
049	0001	SULFATE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195801	196512
049	0001	SULFATE (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	198201	198212
049	0001	SULFATION RATE	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196801	196812
049	0001	SULFATION RATE	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	SULFUR DIOXIDE	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197401	197512
049	0001	SULFUR DIOXIDE	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197501	197712
049	0001	SUSPENDED PARTICULAT	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	195701	198712
049	0001	SUSPENDED PARTICULAT	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197901	198012
049	0001	TIN (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	TIN (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197212
049	0001	TITANIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	TITANIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	TOTAL DUSTFALL	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196901	196912
049	0001	VANADIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	VANADIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	197612
049	0001	VANADIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0001	YTTRIUM (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196801	196812
049	0001	ZINC (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196401	196412
049	0001	ZINC (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	196501	196712
049	0001	ZINC (TSP)	COGSWELL BLDG, 1401 LOCKEY	HELENA	LEWIS AND CLARK	197701	197712
049	0002	DYED FABRIC #1	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196812
049	0002	DYED FABRIC #3	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	DYED FABRIC #5	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	DYED FABRIC #6	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	DYED FABRIC #7	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	DYED FABRIC #8	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196812
049	0002	DYED FABRIC #9	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196812
049	0002	NYLON DETRIORATN	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	RUBBER CRACKING	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196901	196912
049	0002	SILVER TARNISHING	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	STEEL CORROSION	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196812
049	0002	SULFATION RATE	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196812
049	0002	SULFATION RATE	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0002	SUSPENDED PARTICULAT	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	197801	197812
049	0002	TOTAL DUSTFALL	COGSWELL BLDG #2	HELENA	LEWIS AND CLARK	196801	196912
049	0003	SULFUR DIOXIDE	WEGNER RANCH		LEWIS AND CLARK	197201	197212
049	0006	ARSENIC (TSP)	120 E MAIN (E. HELENA)	EAST HELENA	LEWIS AND CLARK	197201	197401
049	0006	CADMIUM (TSP)	120 E MAIN (E. HELENA)	EAST HELENA	LEWIS AND CLARK	197201	197401

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
049	0006	LEAD (TSP)	120 E MAIN (E. HELENA)	EAST HELENA	LEWIS AND CLARK	197201	197401
049	0006	SUSPENDED PARTICULAT	120 E MAIN (E. HELENA)	EAST HELENA	LEWIS AND CLARK	197201	197401
049	0006	ZINC (TSP)	120 E MAIN (E. HELENA)	EAST HELENA	LEWIS AND CLARK	197201	197401
049	0007	ARSENIC (TSP)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198307	198312
049	0007	CADMIUM (TSP)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198301	198312
049	0007	COPPER (TSP)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198301	198312
049	0007	LEAD (TSP)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198301	198312
049	0007	SUSPENDED PARTICULAT	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198301	198312
049	0007	ZINC (TSP)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	EAST HELENA	LEWIS AND CLARK	198301	198312
049	0008	ARSENIC (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	CADMIUM (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	CHROMIUM (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198012
049	0008	COPPER (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	LEAD (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	MANGANESE (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198012
049	0008	NICKEL (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198012
049	0008	NITRATE (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198001	198012
049	0008	SULFATE (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198001	198012
049	0008	SULFATION RATE	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198001	198112
049	0008	SULFUR DIOXIDE	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	SUSPENDED PARTICULAT	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198112
049	0008	VANADIUM (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	197912	198012
049	0008	WIND DIRECTION	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198001	198012
049	0008	WIND SPEED	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198001	198012
049	0008	ZINC (TSP)	A&W EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0009	PM10 TOTAL 0-10UM	1065 PHILLIPS LANE	HELENA	LEWIS AND CLARK	198506	198712
049	0009	PM10 TOTAL 0-10UM	1065 PHILLIPS LANE	HELENA	LEWIS AND CLARK	198704	198712
049	0011	ARSENIC (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	CADMIUM (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	CHROMIUM (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	COPPER (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	LEAD (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	MANGANESE (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	NICKEL (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	NITRATE (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	SULFATE (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	SULFATION RATE	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197801	198112
049	0011	SULFUR DIOXIDE	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197501	197912
049	0011	SUSPENDED PARTICULAT	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0011	VANADIUM (TSP)	PHELPS DODGE CORP.SEVEN-UP PETE #2		LEWIS AND CLARK	197901	197912
049	0012	LEAD (TSP)	PHELPS DODGE CORP.MCDONALD MEADOWS #1		LEWIS AND CLARK	198001	198112

049	0012	SUSPENDED PARTICULAT	PHELPS DODGE CORP.MCDONALD MEADOWS #1		LEWIS AND CLARK	198001	198112
049	0013	SULFATE (TSP)	CAPITAL COURTS, 1013 DEARBORN AVE	HELENA	LEWIS AND CLARK	198201	198212
049	0013	SUSPENDED PARTICULAT	CAPITAL COURTS, 1013 DEARBORN AVE	HELENA	LEWIS AND CLARK	198001	198812
049	0014	SUSPENDED PARTICULAT	SUNHAVEN, 117 VALLEY DRIVE, HELENA	HELENA	LEWIS AND CLARK	198101	198112
049	0015	SUSPENDED PARTICULAT	SUPERSAVE GROCERY, NORTHGATE SHOPPING	HELENA	LEWIS AND CLARK	198201	198212
049	0016	SUSPENDED PARTICULAT	COONEY HOME, 3404 COONEY DR, N. HELENA	HELENA	LEWIS AND CLARK	198201	198512
049	0018	AMBIENT AVG TEMPERAT	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	AMBIENT MAX TEMPERAT	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	AMBIENT MIN TEMPERAT	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	ELAPSED SAMPLE TIME	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	LIGHT SCATTER	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	198812	199302
049	0018	PM10 - LOCAL CONDITI	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199801	
049	0018	PM10 - LOCAL CONDITI	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	200001	
049	0018	PM10 TOTAL 0-10UM	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	198810	
049	0018	PM10 TOTAL 0-10UM	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	198811	198912
049	0018	PM10 TOTAL 0-10UM	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199310	
049	0018	PM2.5 - LOCAL CONDIT	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	SAMPLE AVG BARO PRES	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	SAMPLE FLOW RATE,CV	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	SAMPLE MAX BARO PRES	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	SAMPLE MIN BARO PRES	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	SAMPLE VOLUME	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	199901	
049	0018	WIND DIRECTION	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	198812	198912
049	0018	WIND SPEED	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	HELENA	LEWIS AND CLARK	198812	198912
049	0020	OUTDOOR TEMPERATURE	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199102	199511
049	0020	PM10 - LOCAL CONDITI	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199801	199810
049	0020	PM10 TOTAL 0-10UM	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199001	199710
049	0020	STD DEV HZ WND DIR	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199102	199511
049	0020	WIND DIRECTION	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199102	199511
049	0020	WIND SPEED	PEGASUS GOLD-BASIN CR.DOWNWIND #4,RIMINI		LEWIS AND CLARK	199102	199511
049	0021	PM10 TOTAL 0-10UM	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1		LEWIS AND CLARK	199005	199105
049	0022	PM10 TOTAL 0-10UM	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2		LEWIS AND CLARK	199005	199105
049	0023	PM10 TOTAL 0-10UM	INLAND GOLD-BIG BLACKFOOT-POWERLINE #3		LEWIS AND CLARK	199007	199105
049	0024	PM10 - LOCAL CONDITI	HELENA-ROSSITER SCHOOL;1497 E SIERRA RD	HELENA	LEWIS AND CLARK	199801	
049	0024	PM10 TOTAL 0-10UM	HELENA-ROSSITER SCHOOL;1497 E SIERRA RD	HELENA	LEWIS AND CLARK	199611	
049	0025	AMBIENT AVG TEMPERAT	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	AMBIENT MAX TEMPERAT	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	AMBIENT MIN TEMPERAT	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	ELAPSED SAMPLE TIME	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	PM10 - LOCAL CONDITI	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	199801	
049	0025	PM10 TOTAL 0-10UM	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	199709	
049	0025	PM2.5 - LOCAL CONDIT	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	SAMPLE AVG BARO PRES	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	SAMPLE FLOW RATE,CV	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	SAMPLE MAX BARO PRES	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	SAMPLE MIN BARO PRES	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0025	SAMPLE VOLUME	LINCOLN 1ST BANK;DOWNTOWN US HWY 200		LEWIS AND CLARK	200106	
049	0701	SULFUR DIOXIDE	ASARCO-KLEFFNER ROAD, EAST HELENA	EAST HELENA	LEWIS AND CLARK	196812	199706
049	0702	SULFUR DIOXIDE	ASARCO-WATER TANK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	196812	
049	0703	LEAD (TSP)	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199909	200012

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
049	0703	OUTDOOR TEMPERATURE	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0703	RESULTANT DIRECTION	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0703	RESULTANT SPEED	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0703	STD DEV HZ WND DIR	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0703	STD DEV VT WND SPD	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0703	SULFUR DIOXIDE	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	196812	
049	0703	SUSPENDED PARTICULAT	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199909	200012
049	0703	VERTICAL WIND SPEED	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0703	WIND DIRECTION	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0703	WIND DIRECTION	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0703	WIND SPEED	ASARCO-KENNEDY PARK, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0711	SULFUR DIOXIDE	ASARCO-EAST, EAST HELENA	EAST HELENA	LEWIS AND CLARK	197605	199206
049	0712	ARSENIC (TSP)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	CADMIUM (TSP)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	COPPER (TSP)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	LEAD (TSP)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	SULFATION RATE	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	SUSPENDED PARTICULAT	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0712	ZINC (TSP)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	ARSENIC (TSP)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	CADMIUM (TSP)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	COPPER (TSP)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	LEAD (TSP)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	SULFATION RATE	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	SUSPENDED PARTICULAT	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0713	ZINC (TSP)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	ARSENIC (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	ARSENIC (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	200012
049	0714	CADMIUM (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	CADMIUM (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198102	200012
049	0714	CHROMIUM (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	CHROMIUM (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	200012
049	0714	COPPER (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	COPPER (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198102	200012
049	0714	IRON (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	LEAD (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	LEAD (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	200012
049	0714	NICKEL (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	199507	200012
049	0714	OUTDOOR TEMPERATURE	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0714	STD DEV HZ WND DIR	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0714	SULFATION RATE	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112

049	0714	SUSPENDED PARTICULAT	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0714	SUSPENDED PARTICULAT	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198101	200012
049	0714	TIN (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198701	198812
049	0714	WIND DIRECTION	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0714	WIND SPEED	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0714	ZINC (TSP)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	EAST HELENA	LEWIS AND CLARK	198301	200012
049	0715	ARSENIC (TSP)	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0715	CADMIUM (TSP)	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0715	COPPER (TSP)	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0715	LEAD (TSP)	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0715	SUSPENDED PARTICULAT	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0715	ZINC (TSP)	ASARCO-PADBURY, SO OF HIWAY DEPT		LEWIS AND CLARK	198101	198112
049	0716	ARSENIC (TSP)	KLEFFNER FIELD		LEWIS AND CLARK	198101	198512
049	0716	CADMIUM (TSP)	KLEFFNER FIELD		LEWIS AND CLARK	198110	198512
049	0716	COPPER (TSP)	KLEFFNER FIELD		LEWIS AND CLARK	198110	198512
049	0716	LEAD (TSP)	KLEFFNER FIELD		LEWIS AND CLARK	198101	198512
049	0716	SUSPENDED PARTICULAT	KLEFFNER FIELD		LEWIS AND CLARK	198101	198512
049	0716	ZINC (TSP)	KLEFFNER FIELD		LEWIS AND CLARK	198110	198512
049	0719	ARSENIC (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	198512
049	0719	CADMIUM (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198110	198512
049	0719	CADMIUM (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198201	198512
049	0719	COPPER (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198110	198512
049	0719	COPPER (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198201	198512
049	0719	LEAD (PM10)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198807	199108
049	0719	LEAD (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	199306
049	0719	LEAD (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198201	199012
049	0719	PM10 TOTAL 0-10UM	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198807	199303
049	0719	SUSPENDED PARTICULAT	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	199012
049	0719	SUSPENDED PARTICULAT	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	199306
049	0719	WIND DIRECTION	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0719	WIND SPEED	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198101	198112
049	0719	ZINC (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198110	198512
049	0719	ZINC (TSP)	HADFIELD, 101 WEST MAIN, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198201	198512
049	0721	OUTDOOR TEMPERATURE	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0721	OUTDOOR TEMPERATURE	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199706
049	0721	RESULTANT DIRECTION	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0721	RESULTANT SPEED	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0721	STD DEV HZ WND DIR	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0721	STD DEV VT WND SPD	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0721	TEMPERATURE DIFFEREN	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199112
049	0721	VERTICAL WIND SPEED	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0721	WIND DIRECTION	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0721	WIND DIRECTION	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0721	WIND SPEED	ASARCO - ZINC PLANT, EAST HELENA	EAST HELENA	LEWIS AND CLARK	198912	199706
049	0722	ARSENIC (TSP)	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198209	198312
049	0722	CADMIUM (TSP)	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198201	198312
049	0722	COPPER (TSP)	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198201	198312
049	0722	LEAD (TSP)	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198201	198312
049	0722	SUSPENDED PARTICULAT	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198201	198312
049	0722	ZINC (TSP)	DARTMAN RANCH, NORTH OF EAST HELENA		LEWIS AND CLARK	198201	198312

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
049	0724	ARSENIC (TSP)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198306	198512
049	0724	CADMIUM (TSP)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198301	198512
049	0724	COPPER (PM10)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198711	198812
049	0724	COPPER (TSP)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198301	198812
049	0724	LEAD (PM10)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198711	198912
049	0724	LEAD (TSP)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198306	199908
049	0724	PM10 TOTAL 0-10UM	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198711	198912
049	0724	SUSPENDED PARTICULAT	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198301	199908
049	0724	ZINC (TSP)	DARTMAN FIELD, NORTH OF EAST HELENA		LEWIS AND CLARK	198301	198912
049	0726	LEAD (TSP)	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198911	200112
049	0726	OUTDOOR TEMPERATURE	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198912	
049	0726	RESULTANT DIRECTION	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0726	RESULTANT SPEED	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	199304	199601
049	0726	STD DEV HZ WND DIR	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198912	
049	0726	STD DEV VT WND SPD	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0726	SUSPENDED PARTICULAT	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198911	200112
049	0726	VERTICAL WIND SPEED	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0726	WIND DIRECTION	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198912	
049	0726	WIND DIRECTION	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	199304	199412
049	0726	WIND SPEED	OLD RR,HWY 518,E HELENA	EAST HELENA	LEWIS AND CLARK	198912	
049	0727	COPPER (TSP)	PRICKLY PEAR CRK, 21 EAST PACIFIC	EAST HELENA	LEWIS AND CLARK	199405	200112
049	0727	LEAD (TSP)	PRICKLY PEAR CRK, 21 EAST PACIFIC	EAST HELENA	LEWIS AND CLARK	199311	200112
049	0727	SUSPENDED PARTICULAT	PRICKLY PEAR CRK, 21 EAST PACIFIC	EAST HELENA	LEWIS AND CLARK	199311	200112
049	0901	SULFUR DIOXIDE	DEACONESS HILL	HELENA	LEWIS AND CLARK	197301	197412
049	0901	SULFUR DIOXIDE	DEACONESS HILL	HELENA	LEWIS AND CLARK	197301	197512
049	1002	ALUMINUM (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	197912
049	1002	ARSENIC (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198512
049	1002	CADMIUM (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198512
049	1002	CHROMIUM (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198112
049	1002	COPPER (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197809	198512
049	1002	IRON (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198112
049	1002	LEAD (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197701	198512
049	1002	MANGANESE (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198012
049	1002	NICKEL (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198012
049	1002	NITRATE (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197701	197712
049	1002	NITRATE (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198012
049	1002	SULFATE (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197701	198012
049	1002	SULFATION RATE	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198112
049	1002	SUSPENDED PARTICULAT	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197401	198512
049	1002	VANADIUM (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197801	198012
049	1002	ZINC (TSP)	HASTIE RESIDENCE, 212 PACIFIC ST	EAST HELENA	LEWIS AND CLARK	197809	198512

053	0001	SUSPENDED PARTICULAT	JACK BROWN RESIDENCE TROY,MONTANA		LINCOLN	197701	197812
053	0002	SUSPENDED PARTICULAT	RAY SAMPSON RESIDENCE SOUTH OF TROY, MON		LINCOLN	197701	197812
053	0004	SUSPENDED PARTICULAT	ASARCO-TROY,LITTLE JOE,TROY		LINCOLN	198201	199012
053	0005	CADMIUM (TSP)	REUTER RESIDENCE	LIBBY	LINCOLN	197201	197212
053	0005	LEAD (TSP)	REUTER RESIDENCE	LIBBY	LINCOLN	197201	197212
053	0005	SUSPENDED PARTICULAT	REUTER RESIDENCE	LIBBY	LINCOLN	197201	197312
053	0005	ZINC (TSP)	REUTER RESIDENCE	LIBBY	LINCOLN	197201	197212
053	0006	TOTAL DUSTFALL	BURRIS RESIDENCE, SOUTH OF TROY		LINCOLN	198401	198512
053	0007	PM10 TOTAL 0-10UM	KENDALL FIELD, FARM TO MARKET ROAD	LIBBY	LINCOLN	198711	198812
053	0007	SUSPENDED PARTICULAT	KENDALL FIELD, FARM TO MARKET ROAD	LIBBY	LINCOLN	198705	198712
053	0009	SUSPENDED PARTICULAT	SVERDRUP RESIDENCE, 120 LARCH	LIBBY	LINCOLN	197401	197712
053	0010	NITRATE (TSP)	BROWN RESIDENCE, 1119 DAKOTA	LIBBY	LINCOLN	197901	198012
053	0010	SULFATE (TSP)	BROWN RESIDENCE, 1119 DAKOTA	LIBBY	LINCOLN	197901	198212
053	0010	SUSPENDED PARTICULAT	BROWN RESIDENCE, 1119 DAKOTA	LIBBY	LINCOLN	197701	198512
053	0012	PM10 TOTAL 0-10UM	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198501	198712
053	0012	PM10 TOTAL 0-10UM	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198505	198712
053	0012	PM10 TOTAL 0-10UM	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198704	199012
053	0012	PM10 TOTAL 0-10UM	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198704	199503
053	0012	SUSPENDED PARTICULAT	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198301	198712
053	0012	SUSPENDED PARTICULAT	LINCOLN CO COURTHOUSE,418 MINERAL AVE	LIBBY	LINCOLN	198401	198712
053	0013	LIGHT SCATTER	RIVER SITE, LIBBY, MT	LIBBY	LINCOLN	198501	198612
053	0017	DUSTFALL COMBUSTBLE	HORELICK 707 MICHIGAN AVE LIBBY MT	LIBBY	LINCOLN	198501	199305
053	0017	TOTAL DUSTFALL	HORELICK 707 MICHIGAN AVE LIBBY MT	LIBBY	LINCOLN	198501	199305
053	0018	AMBIENT AVG TEMPERAT	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	AMBIENT MAX TEMPERAT	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	AMBIENT MIN TEMPERAT	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	ELAPSED SAMPLE TIME	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	LIGHT SCATTER	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	198612	199310
053	0018	PM10 - LOCAL CONDITI	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	200001	
053	0018	PM10 TOTAL 0-10UM	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199310	
053	0018	PM2.5 - LOCAL CONDIT	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	SAMPLE AVG BARO PRES	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	SAMPLE FLOW RATE,CV	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	SAMPLE MAX BARO PRES	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	SAMPLE MIN BARO PRES	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	SAMPLE VOLUME	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	199901	
053	0018	WIND DIRECTION	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	198711	198812
053	0018	WIND SPEED	COUNTY COURTHOUSE ANNEX - LIBBY	LIBBY	LINCOLN	198711	198812
053	0019	PM10 TOTAL 0-10UM	TROY HIGH SCHOOL,116 E MISSOULA, TROY		LINCOLN	199110	199506
053	1005	PM10 TOTAL 0-10UM	LINCOLN ELEC CO-OP, HWY 93 NEAR EUREKA		LINCOLN	198710	199212
053	1005	SUSPENDED PARTICULAT	LINCOLN ELEC CO-OP, HWY 93 NEAR EUREKA		LINCOLN	198401	198712
055	0001	NITROGEN DIOXIDE	TV HILL (FORT PECK)		MC CONE	197401	197512
055	0001	NITROGEN DIOXIDE	TV HILL (FORT PECK)		MC CONE	197601	197812
055	0001	SULFUR DIOXIDE	TV HILL (FORT PECK)		MC CONE	197401	197512
055	0001	SULFUR DIOXIDE	TV HILL (FORT PECK)		MC CONE	197601	197712
055	0001	SUSPENDED PARTICULAT	TV HILL (FORT PECK)		MC CONE	197401	197912
055	0001	WIND DIRECTION	TV HILL (FORT PECK)		MC CONE	197801	197912
055	0001	WIND SPEED	TV HILL (FORT PECK)		MC CONE	197801	197912
057	0001	SUSPENDED PARTICULAT	CYPRUS IND-YELLOWSTONE MINE #1,THREE FK		MADISON	198301	198412
057	0001	SUSPENDED PARTICULAT	CYPRUS IND-YELLOWSTONE MINE #1,THREE FK		MADISON	198401	198912



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
057	0003	OUTDOOR TEMPERATURE	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK		MADISON	198401	198412
057	0003	SUSPENDED PARTICULAT	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK		MADISON	198301	198412
057	0003	WIND DIRECTION	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK		MADISON	198401	198412
057	0003	WIND SPEED	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK		MADISON	198401	198412
057	0004	PM10 TOTAL 0-10UM	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS		MADISON	198904	199307
057	0004	SUSPENDED PARTICULAT	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS		MADISON	198510	198612
057	0004	SUSPENDED PARTICULAT	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS		MADISON	198510	198912
057	0005	PM10 TOTAL 0-10UM	MONTANA TALC UPWIND HIVOL,ENNIS		MADISON	198904	199509
057	0005	SUSPENDED PARTICULAT	MONTANA TALC UPWIND HIVOL,ENNIS		MADISON	198602	198909
057	0006	STD DEV HZ WND DIR	MONTANA TALC MET TRAILER, ENNIS		MADISON	199311	199509
057	0006	WIND DIRECTION	MONTANA TALC MET TRAILER, ENNIS		MADISON	198509	199509
057	0006	WIND SPEED	MONTANA TALC MET TRAILER, ENNIS		MADISON	198509	199509
057	0007	PM10 - LOCAL CONDITI	LUZENAC UPWIND SOUTH;12 M S OF CAMERON		MADISON	199801	
057	0007	PM10 TOTAL 0-10UM	LUZENAC UPWIND SOUTH;12 M S OF CAMERON		MADISON	198911	199712
057	0008	PM10 - LOCAL CONDITI	LUZENAC DOWNWIND NORTH;CAMERSON		MADISON	199801	
057	0008	PM10 TOTAL 0-10UM	LUZENAC DOWNWIND NORTH;CAMERSON		MADISON	198911	199712
057	0009	OUTDOOR TEMPERATURE	YELLOWSTONE MINE-MET STATION, ENNIS		MADISON	198912	199509
057	0009	STD DEV HZ WND DIR	YELLOWSTONE MINE-MET STATION, ENNIS		MADISON	198912	199509
057	0009	WIND DIRECTION	YELLOWSTONE MINE-MET STATION, ENNIS		MADISON	198912	199509
057	0009	WIND SPEED	YELLOWSTONE MINE-MET STATION, ENNIS		MADISON	198912	199509
061	0001	DUSTFALL COMBUSTBLE	COX RESIDENCE,SAINT REGIS, MT 59866		MINERAL	198601	198912
061	0001	TOTAL DUSTFALL	COX RESIDENCE,SAINT REGIS, MT 59866		MINERAL	198601	198912
063	0001	ALUMINUM (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	197812
063	0001	ARSENIC (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	BENZENE SOL ORG(TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197101	197712
063	0001	CADMIUM (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	CHROMIUM (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	COPPER (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	IRON (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	197812
063	0001	LEAD (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	MANGANESE (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	NICKEL (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	NITRATE (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	198012
063	0001	NITROGEN DIOXIDE	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197501	197612
063	0001	SULFATE (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197101	197612
063	0001	SULFATE (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197701	198312
063	0001	SULFUR DIOXIDE	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197501	197612
063	0001	SUSPENDED PARTICULAT	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	196801	198412
063	0001	SUSPENDED PARTICULAT	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	198201	198312
063	0001	VANADIUM (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197901	198012
063	0001	ZINC (TSP)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE		MISSOULA	197801	197812

063	0002	BENZENE SOL ORG(TSP)	FT MISSOULA	MISSOULA	MISSOULA	197101	197312
063	0002	SULFATE (TSP)	FT MISSOULA	MISSOULA	MISSOULA	197101	197312
063	0002	SUSPENDED PARTICULAT	FT MISSOULA	MISSOULA	MISSOULA	197101	197312
063	0003	CARBON MONOXIDE	BROOK AND SOUTH	MISSOULA	MISSOULA	197701	197812
063	0005	CARBON MONOXIDE	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	MISSOULA	MISSOULA	197901	
063	0005	STD DEV HZ WND DIR	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	MISSOULA	MISSOULA	199011	199303
063	0005	WIND DIRECTION	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	MISSOULA	MISSOULA	198001	199303
063	0005	WIND SPEED	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	MISSOULA	MISSOULA	198001	199303
063	0008	BENZENE SOL ORG(TSP)	RANGERS STA. SEELEY LAKE HIWAY 209		MISSOULA	197101	197212
063	0008	SULFATE (TSP)	RANGERS STA. SEELEY LAKE HIWAY 209		MISSOULA	197101	197212
063	0008	SUSPENDED PARTICULAT	RANGERS STA. SEELEY LAKE HIWAY 209		MISSOULA	197101	197212
063	0009	BENZENE SOL ORG(TSP)	JOHNSON BELL FIELD,HIWAY 10 WEST		MISSOULA	197101	197712
063	0009	SULFATE (TSP)	JOHNSON BELL FIELD,HIWAY 10 WEST		MISSOULA	197101	197612
063	0009	SULFATE (TSP)	JOHNSON BELL FIELD,HIWAY 10 WEST		MISSOULA	197701	197812
063	0009	SUSPENDED PARTICULAT	JOHNSON BELL FIELD,HIWAY 10 WEST		MISSOULA	197101	197812
063	0010	BENZENE SOL ORG(TSP)	BONNER ONE STATE FORESTRY OFFICE		MISSOULA	197201	197312
063	0010	SULFATE (TSP)	BONNER ONE STATE FORESTRY OFFICE		MISSOULA	197201	197312
063	0010	SUSPENDED PARTICULAT	BONNER ONE STATE FORESTRY OFFICE		MISSOULA	197201	197812
063	0011	SUSPENDED PARTICULAT	BONNER TWO		MISSOULA	197301	197412
063	0013	SUSPENDED PARTICULAT	TARGET RANGE		MISSOULA	197301	197512
063	0014	BENZENE SOL ORG(TSP)	FRENCHTOWN		MISSOULA	197701	197712
063	0014	SULFATE (TSP)	FRENCHTOWN		MISSOULA	197601	197612
063	0014	SULFATE (TSP)	FRENCHTOWN		MISSOULA	197701	197712
063	0014	SUSPENDED PARTICULAT	FRENCHTOWN		MISSOULA	197501	197712
063	0015	BENZENE SOL ORG(TSP)	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	197701	198712
063	0015	HYDROGEN SULFIDE	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	198501	198712
063	0015	SULFATE (TSP)	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	197701	198612
063	0015	SULFUR DIOXIDE	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	198501	198512
063	0015	SUSPENDED PARTICULAT	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	197701	198712
063	0015	SUSPENDED PARTICULAT	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	198201	198712
063	0015	WIND DIRECTION	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	197901	198712
063	0015	WIND SPEED	CHAMPION PACKAGING, FRENCHTOWN		MISSOULA	197901	198712
063	0016	BENZENE SOL ORG(TSP)	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	197701	197712
063	0016	HYDROGEN SULFIDE	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	198101	
063	0016	PM10 - LOCAL CONDITI	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	199801	
063	0016	PM10 TOTAL 0-10UM	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	199205	199712
063	0016	SULFATE (TSP)	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	197701	198612
063	0016	SULFUR DIOXIDE	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	198101	198512
063	0016	SUSPENDED PARTICULAT	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN		MISSOULA	197701	199212
063	0017	SULFATE (TSP)	CHAMPION PACKAGING, FRENCHTOWN, MT		MISSOULA	197701	197812
063	0017	SUSPENDED PARTICULAT	CHAMPION PACKAGING, FRENCHTOWN, MT		MISSOULA	197701	197912
063	0018	SULFATE (TSP)	COURTHOUSE LAWN		MISSOULA	197701	197712
063	0018	SULFATE (TSP)	COURTHOUSE LAWN		MISSOULA	197701	197812
063	0018	SUSPENDED PARTICULAT	COURTHOUSE LAWN		MISSOULA	197701	197812
063	0019	ALUMINUM (TSP)	LIONS PARK		MISSOULA	197801	197912
063	0019	ARSENIC (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	BARIUM (TSP)	LIONS PARK		MISSOULA	197801	197812
063	0019	BAROMETRIC PRESSURE	LIONS PARK		MISSOULA	197901	198012
063	0019	CADMIUM (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	CARBON MONOXIDE	LIONS PARK		MISSOULA	197801	198112

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
063	0019	CHROMIUM (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	COPPER (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	IRON (TSP)	LIONS PARK		MISSOULA	197801	197912
063	0019	LEAD (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	LIGHT SCATTER	LIONS PARK		MISSOULA	197801	198012
063	0019	MANGANESE (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	NICKEL (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	NITRATE (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	NITRIC OXIDE	LIONS PARK		MISSOULA	197901	197912
063	0019	NITROGEN DIOXIDE	LIONS PARK		MISSOULA	197701	198412
063	0019	OUTDOOR TEMPERATURE	LIONS PARK		MISSOULA	197801	197812
063	0019	OXIDES OF NITROGEN	LIONS PARK		MISSOULA	197901	197912
063	0019	OZONE	LIONS PARK		MISSOULA	197801	198112
063	0019	SULFATE (TSP)	LIONS PARK		MISSOULA	197701	198012
063	0019	SULFATE (TSP)	LIONS PARK		MISSOULA	197801	197812
063	0019	SULFUR DIOXIDE	LIONS PARK		MISSOULA	197701	198112
063	0019	SUSPENDED PARTICULAT	LIONS PARK		MISSOULA	197701	198112
063	0019	TOTAL HYDROCARBONS	LIONS PARK		MISSOULA	197701	198012
063	0019	VANADIUM (TSP)	LIONS PARK		MISSOULA	197801	198012
063	0019	WIND DIRECTION	LIONS PARK		MISSOULA	197801	198012
063	0019	WIND SPEED	LIONS PARK		MISSOULA	197801	198012
063	0019	ZINC (TSP)	LIONS PARK		MISSOULA	197801	197912
063	0020	CARBON MONOXIDE	ROSE PARK	MISSOULA	MISSOULA	198001	198212
063	0020	LIGHT SCATTER	ROSE PARK	MISSOULA	MISSOULA	198001	198212
063	0020	OUTDOOR TEMPERATURE	ROSE PARK	MISSOULA	MISSOULA	198101	198312
063	0020	PM10 TOTAL 0-10UM	ROSE PARK	MISSOULA	MISSOULA	198401	198712
063	0020	PM10 TOTAL 0-10UM	ROSE PARK	MISSOULA	MISSOULA	198704	198712
063	0020	SIZE FRACTINTD PARTI	ROSE PARK	MISSOULA	MISSOULA	198301	198412
063	0020	SULFATE (TSP)	ROSE PARK	MISSOULA	MISSOULA	198101	198612
063	0020	SULFUR DIOXIDE	ROSE PARK	MISSOULA	MISSOULA	198201	198312
063	0020	SUSPENDED PARTICULAT	ROSE PARK	MISSOULA	MISSOULA	197801	198712
063	0020	SUSPENDED PARTICULAT	ROSE PARK	MISSOULA	MISSOULA	198201	198312
063	0020	WIND DIRECTION	ROSE PARK	MISSOULA	MISSOULA	198001	198312
063	0020	WIND SPEED	ROSE PARK	MISSOULA	MISSOULA	198001	198312
063	0023	CARBON MONOXIDE	DOWNTOWN CO,HIGGINS BETWN BROADWY & MAIN		MISSOULA	198001	198112
063	0024	ALUMINUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	AMBIENT AVG TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	AMBIENT AVG TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	AMBIENT MAX TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	AMBIENT MAX TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	AMBIENT MIN TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204

063	0024	AMBIENT MIN TEMPERAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	AMMONIUM ION PM2.5 L	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	ANTIMONY PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	ARSENIC PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	BARIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	BROMINE PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CADMIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CALCIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CARBON MONOXIDE	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198108	199103
063	0024	CARBONATE CARBON PM2	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CERIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CESIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CHLORINE PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	CHROMIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	COBALT PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	COPPER PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	ELAPSED SAMPLE TIME	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	ELEMENTAL CARBON PM2	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	EUROPIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	GALLIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	GOLD PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	HAFNIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	INDIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	IRIDIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	IRON PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	LANTHANUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	LEAD PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	MANGANESE PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	MANGNESIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	MERCURY PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	MOLYBDENUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	NICKEL PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	NIObIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	NITRATE (PM10)	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199609	199706
063	0024	OCX CARBON	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	OCX2 CARBON	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200102	200204
063	0024	ORGANIC CARBON PM2.5	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	PHOSPHOROUS PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	PM10 - LOCAL CONDITI	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199801	
063	0024	PM10 - LOCAL CONDITI	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200001	
063	0024	PM10 TOTAL 0-10UM	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198401	199909
063	0024	PM10 TOTAL 0-10UM	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198410	198712
063	0024	PM10 TOTAL 0-10UM	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198705	199012
063	0024	PM10 TOTAL 0-10UM	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199201	
063	0024	PM2.5 - LOCAL CONDIT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	PM2.5 - LOCAL CONDIT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	POTASSIUM ION PM2.5	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	POTASSIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	RUBIDIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SAMARIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
063	0024	SAMPLE AVG BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	SAMPLE AVG BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SAMPLE FLOW RATE,CV	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	SAMPLE MAX BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	SAMPLE MAX BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SAMPLE MIN BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	SAMPLE MIN BARO PRES	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SAMPLE VOLUME	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199901	200204
063	0024	SCANDIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SELENIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SILICON PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SILVER PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SIZE FRACTINTD PARTI	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198301	198412
063	0024	SODIUM ION PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SODIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	STRONTIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SULFATE (PM10)	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	199609	199706
063	0024	SULFATE PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SULFUR PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	SUSPENDED PARTICULAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198101	198712
063	0024	SUSPENDED PARTICULAT	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	198301	198412
063	0024	TANTALUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	TERBIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	TIN PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	TITANIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	TOTAL NITRATE PM2.5	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	VANADIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	WOLFRAM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	YTTRIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	ZINC PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0024	ZIRCONIUM PM2.5 LC	BOYD PARK, 3100 WASHBURN	MISSOULA	MISSOULA	200101	200204
063	0025	SUSPENDED PARTICULAT	BEACON STREET		MISSOULA	198201	198312
063	0026	SUSPENDED PARTICULAT	GLACIER DRIVE		MISSOULA	198201	198312
063	0028	OUTDOOR TEMPERATURE	CENTRAL EVARO		MISSOULA	198301	198312
063	0028	SUSPENDED PARTICULAT	CENTRAL EVARO		MISSOULA	198301	198312
063	0028	WIND DIRECTION	CENTRAL EVARO		MISSOULA	198301	198312
063	0028	WIND SPEED	CENTRAL EVARO		MISSOULA	198301	198312
063	0029	SIZE FRACTINTD PARTI	BRIGGS AND RESERVE, MISSOULA 59801		MISSOULA	198401	198612
063	0029	SUSPENDED PARTICULAT	BRIGGS AND RESERVE, MISSOULA 59801		MISSOULA	198401	198412
063	0030	SUSPENDED PARTICULAT	SPURGIN ROAD AND TOWER STREET, MISSOULA		MISSOULA	198401	198612
063	0031	AMBIENT AVG TEMPERAT	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	

063	0031	AMBIENT MAX TEMPERAT	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	AMBIENT MIN TEMPERAT	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	ELAPSED SAMPLE TIME	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	PM10 - LOCAL CONDITI	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199801	
063	0031	PM10 TOTAL 0-10UM	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	198609	198712
063	0031	PM10 TOTAL 0-10UM	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	198704	
063	0031	PM2.5 - LOCAL CONDIT	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SAMPLE AVG BARO PRES	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SAMPLE FLOW RATE,CV	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SAMPLE MAX BARO PRES	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SAMPLE MIN BARO PRES	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SAMPLE VOLUME	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	199901	
063	0031	SIZE FRACTINTD PARTI	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	198501	198512
063	0031	SUSPENDED PARTICULAT	HEALTH DEPT, 301 WEST ALDER	MISSOULA	MISSOULA	198501	198712
063	0032	SUSPENDED PARTICULAT	RATTLESNAKE GRADE SCHOOL,120 PINEVIEW,MS		MISSOULA	198601	198712
063	0033	PM10 TOTAL 0-10UM	MT JUMBO SCHOOL, MINNESOTA & 6TH	MISSOULA	MISSOULA	198612	198711
063	0033	PM10 TOTAL 0-10UM	MT JUMBO SCHOOL, MINNESOTA & 6TH	MISSOULA	MISSOULA	198704	198711
063	0033	SIZE FRACTINTD PARTI	MT JUMBO SCHOOL, MINNESOTA & 6TH	MISSOULA	MISSOULA	198601	198612
063	0034	HYDROGEN SULFIDE	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198701	
063	0034	NITROGEN DIOXIDE	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198701	199206
063	0034	PM10 - LOCAL CONDITI	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	199801	
063	0034	PM10 TOTAL 0-10UM	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	199205	199712
063	0034	STD DEV HZ WND DIR	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	199306	
063	0034	SUSPENDED PARTICULAT	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198710	199012
063	0034	SUSPENDED PARTICULAT	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198710	199205
063	0034	WIND DIRECTION	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198701	
063	0034	WIND SPEED	STONE CONTAINER #1A, MOCCASIN LANE	MISSOULA	MISSOULA	198701	
063	0035	PM10 - LOCAL CONDITI	LOLO LUBE CENTER;11555 S HWY 93	LOLO	MISSOULA	199801	200006
063	0035	PM10 TOTAL 0-10UM	LOLO LUBE CENTER;11555 S HWY 93	LOLO	MISSOULA	199708	200006
063	0701	OUTDOOR TEMPERATURE	TV MOUNTAIN, MAPS MET SITE		MISSOULA	197801	197912
063	0702	WIND DIRECTION	OLOFSON FARM,MAPS MET SITE		MISSOULA	197801	198012
063	0702	WIND SPEED	OLOFSON FARM,MAPS MET SITE		MISSOULA	197801	198012
063	0703	WIND DIRECTION	STEIGLER FARM, MAPS MET SITE		MISSOULA	197801	198012
063	0703	WIND SPEED	STEIGLER FARM, MAPS MET SITE		MISSOULA	197801	198012
063	0704	WIND DIRECTION	UNIVERSITY OF MONTANA,MAPS MET SITE		MISSOULA	197801	198012
063	0704	WIND SPEED	UNIVERSITY OF MONTANA,MAPS MET SITE		MISSOULA	197801	198012
067	0001	ARSENIC (PM10)	TVX MINERAL HILL MINE #1,BOX 92,GARDINER		PARK	198901	
067	0001	LEAD (PM10)	TVX MINERAL HILL MINE #1,BOX 92,GARDINER		PARK	198901	199112
067	0001	PM10 - LOCAL CONDITI	TVX MINERAL HILL MINE #1,BOX 92,GARDINER		PARK	199801	
067	0001	PM10 TOTAL 0-10UM	TVX MINERAL HILL MINE #1,BOX 92,GARDINER		PARK	198805	199712
067	0002	ARSENIC (PM10)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198901	199704
067	0002	ARSENIC (TSP)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198901	199112
067	0002	LEAD (PM10)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198901	199112
067	0002	LEAD (TSP)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198901	199112
067	0002	OUTDOOR TEMPERATURE	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198804	199102
067	0002	PM10 TOTAL 0-10UM	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198805	199704
067	0002	SUSPENDED PARTICULAT	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198801	199112
067	0002	WIND DIRECTION	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198804	199105
067	0002	WIND SPEED	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR		PARK	198804	199105

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
067	0003	ARSENIC (PM10)	MIN HILL-HOMESTEAD #3 NORTH,JARDINE		PARK	198901	199704
067	0003	LEAD (PM10)	MIN HILL-HOMESTEAD #3 NORTH,JARDINE		PARK	198901	199112
067	0003	PM10 TOTAL 0-10UM	MIN HILL-HOMESTEAD #3 NORTH,JARDINE		PARK	198805	199704
067	0005	ARSENIC (PM10)	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0005	CADMIUM (PM10)	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0005	CHROMIUM (PM10)	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0005	LEAD (PM10)	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0005	OUTDOOR TEMPERATURE	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198906	199108
067	0005	PM10 TOTAL 0-10UM	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0005	STD DEV HZ WND DIR	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199108
067	0005	WIND DIRECTION	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199108
067	0005	WIND SPEED	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199108
067	0005	ZINC (PM10)	NORANDA INC-NEW WORLD-FISHER CR #1		PARK	198909	199107
067	0006	ARSENIC (PM10)	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0006	CADMIUM (PM10)	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0006	CHROMIUM (PM10)	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0006	LEAD (PM10)	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0006	PM10 TOTAL 0-10UM	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0006	STD DEV HZ WND DIR	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199108
067	0006	WIND DIRECTION	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199108
067	0006	WIND SPEED	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199108
067	0006	ZINC (PM10)	NORANDA INC-NEW WORLD-MCLAREN MINE #2		PARK	198909	199010
067	0007	ARSENIC (PM10)	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0007	CADMIUM (PM10)	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0007	CHROMIUM (PM10)	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0007	LEAD (PM10)	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0007	PM10 TOTAL 0-10UM	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0007	ZINC (PM10)	NEW WORLD SITE #3, COOKE CITY		PARK	199006	199112
067	0008	PM10 TOTAL 0-10UM	BRAND S LUMBER-SITE 6-CITY PK,LIVINGSTON	LIVINGSTON	PARK	199005	199112
067	0009	ARSENIC (PM10)	MINERAL HILL-CREEK #4, JARDINE		PARK	199011	199309
067	0009	LEAD (PM10)	MINERAL HILL-CREEK #4, JARDINE		PARK	199011	199112
067	0009	PM10 TOTAL 0-10UM	MINERAL HILL-CREEK #4, JARDINE		PARK	199011	199309
067	0010	ARSENIC (PM10)	MINERAL HILL-OFFICE #5, JARDINE		PARK	199011	199309
067	0010	LEAD (PM10)	MINERAL HILL-OFFICE #5, JARDINE		PARK	199011	199112
067	0010	PM10 TOTAL 0-10UM	MINERAL HILL-OFFICE #5, JARDINE		PARK	199011	199309
067	0011	OUTDOOR TEMPERATURE	MINERAL HILL-MET STATION, JARDINE		PARK	199108	
067	0011	STD DEV HZ WND DIR	MINERAL HILL-MET STATION, JARDINE		PARK	199105	
067	0011	WIND DIRECTION	MINERAL HILL-MET STATION, JARDINE		PARK	199105	
067	0011	WIND SPEED	MINERAL HILL-MET STATION, JARDINE		PARK	199105	
067	0013	DUSTFALL COMBUSTBLE	BRAND S CORP, SURROUNDING #2 DUSTFALL	LIVINGSTON	PARK	199006	199512
067	0013	TOTAL DUSTFALL	BRAND S CORP, SURROUNDING #2 DUSTFALL	LIVINGSTON	PARK	199006	199512

067	0014	DUSTFALL COMBUSTBLE	BRAND S CORP, SILO BURNER #3	LIVINGSTON	PARK	199006	199512
067	0014	TOTAL DUSTFALL	BRAND S CORP, SILO BURNER #3	LIVINGSTON	PARK	199006	199512
067	0015	DUSTFALL COMBUSTBLE	BRAND S CORP, SILO BURNER #4	LIVINGSTON	PARK	199006	199512
067	0015	TOTAL DUSTFALL	BRAND S CORP, SILO BURNER #4	LIVINGSTON	PARK	199006	199512
067	0016	DUSTFALL COMBUSTBLE	BRAND S CORP, SILO BURNER #5	LIVINGSTON	PARK	199006	199512
067	0016	TOTAL DUSTFALL	BRAND S CORP, SILO BURNER #5	LIVINGSTON	PARK	199006	199512
067	0017	DUSTFALL COMBUSTBLE	BRAND S CORP, SILO BURNER #6	LIVINGSTON	PARK	199006	199512
067	0017	TOTAL DUSTFALL	BRAND S CORP, SILO BURNER #6	LIVINGSTON	PARK	199006	199512
067	0018	DUSTFALL COMBUSTBLE	BRAND S CORP, SILO BURNER #7	LIVINGSTON	PARK	199006	199512
067	0018	TOTAL DUSTFALL	BRAND S CORP, SILO BURNER #7	LIVINGSTON	PARK	199006	199512
071	0001	SUSPENDED PARTICULAT	MULTU BLM		PHILLIPS	198101	198512
071	0002	ARSENIC (PM10)	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199303
071	0002	CADMIUM (PM10)	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199112
071	0002	CHROMIUM (PM10)	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199303
071	0002	LEAD (PM10)	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199303
071	0002	PM10 - LOCAL CONDITI	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199801	
071	0002	PM10 TOTAL 0-10UM	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199712
071	0002	ZINC (PM10)	PEGASUS, ZORTMAN MINING, LANDUSKY #2		PHILLIPS	199004	199112
071	0003	ARSENIC (PM10)	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199112
071	0003	CADMIUM (PM10)	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199112
071	0003	CHROMIUM (PM10)	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199303
071	0003	LEAD (PM10)	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199303
071	0003	OUTDOOR TEMPERATURE	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199004	199203
071	0003	PM10 TOTAL 0-10UM	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199303
071	0003	STD DEV HZ WND DIR	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199004	199203
071	0003	WIND DIRECTION	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199004	199203
071	0003	WIND SPEED	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199004	199203
071	0003	ZINC (PM10)	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3		PHILLIPS	199005	199112
071	0004	OUTDOOR TEMPERATURE	PEGASUS, ZORTMAN MINING,BONEYARD #4		PHILLIPS	199003	199203
071	0004	STD DEV HZ WND DIR	PEGASUS, ZORTMAN MINING,BONEYARD #4		PHILLIPS	199003	199203
071	0004	WIND DIRECTION	PEGASUS, ZORTMAN MINING,BONEYARD #4		PHILLIPS	199003	199203
071	0004	WIND SPEED	PEGASUS, ZORTMAN MINING,BONEYARD #4		PHILLIPS	199003	199203
071	0005	ARSENIC (PM10)	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	
071	0005	CADMIUM (PM10)	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	
071	0005	CHROMIUM (PM10)	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	199303
071	0005	LEAD (PM10)	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	199303
071	0005	PM10 - LOCAL CONDITI	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199801	
071	0005	PM10 TOTAL 0-10UM	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	199712
071	0005	ZINC (PM10)	ZORTMAN MINE #5, DOWNEY RESIDENCE		PHILLIPS	199005	
071	0006	ARSENIC (PM10)	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199312
071	0006	CADMIUM (PM10)	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199312
071	0006	CHROMIUM (PM10)	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199303
071	0006	LEAD (PM10)	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199303
071	0006	PM10 TOTAL 0-10UM	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199312
071	0006	ZINC (PM10)	ZORTMAN MINING - SCHOOLHOUSE #6		PHILLIPS	199006	199312
071	0007	ARSENIC (PM10)	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199303
071	0007	CADMIUM (PM10)	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199201
071	0007	CHROMIUM (PM10)	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199303
071	0007	LEAD (PM10)	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199303
071	0007	PM10 TOTAL 0-10UM	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199705



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
071	0007	ZINC (PM10)	ZORTMAN MINING-FRANCIS KOLCZAK #1		PHILLIPS	199004	199201
071	0008	ARSENIC (PM10)	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199010	199312
071	0008	CADMIUM (PM10)	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199010	199312
071	0008	CHROMIUM (PM10)	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199010	199303
071	0008	LEAD (PM10)	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199010	199303
071	0008	PM10 TOTAL 0-10UM	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199009	199412
071	0008	STD DEV HZ WND DIR	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199009	199412
071	0008	WIND DIRECTION	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199009	199412
071	0008	WIND SPEED	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199009	199412
071	0008	ZINC (PM10)	ZORTMAN-SQUARE BUTTE #7, ZORTMAN		PHILLIPS	199010	199112
071	0009	PM10 TOTAL 0-10UM	ZORTMAN-UPPER ALDER GULCH		PHILLIPS	199304	199705
075	0006	BENZENE SOL ORG(TSP)	LAFLAMME,718 S LINCOLN		POWDER RIVER	197201	197312
075	0006	CADMIUM (TSP)	LAFLAMME,718 S LINCOLN		POWDER RIVER	197201	197312
075	0006	LEAD (TSP)	LAFLAMME,718 S LINCOLN		POWDER RIVER	197201	197312
075	0006	SUSPENDED PARTICULAT	LAFLAMME,718 S LINCOLN		POWDER RIVER	197201	197312
075	0006	ZINC (TSP)	LAFLAMME,718 S LINCOLN		POWDER RIVER	197201	197312
075	0008	AMMONIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197712
075	0008	ARSENIC (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	BARIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	BERYLLIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	BERYLLIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	CADMIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	CADMIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	CHROMIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	CHROMIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	COBALT (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	COBALT (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	COPPER (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	COPPER (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	IRON (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	IRON (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	LEAD (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197512
075	0008	LEAD (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	MANGANESE (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	MANGANESE (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	MOLYBDENUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	NICKEL (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	NICKEL (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	NITRATE (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197812
075	0008	SULFATE (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197812
075	0008	SUSPENDED PARTICULAT	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197401	197812

075	0008	TITANIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	VANADIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197501	197612
075	0008	VANADIUM (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0008	ZINC (TSP)	NEAR FORT HOWES RANGER STATION		POWDER RIVER	197701	197812
075	0009	SUSPENDED PARTICULAT	RANDALL RANCH, 4 MI SW BROADUS		POWDER RIVER	197401	197812
075	0009	WIND DIRECTION	RANDALL RANCH, 4 MI SW BROADUS		POWDER RIVER	197601	197612
075	0009	WIND SPEED	RANDALL RANCH, 4 MI SW BROADUS		POWDER RIVER	197601	197612
077	0001	ARSENIC (TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	BENZENE SOL ORG(TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	CADMIUM (TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	LEAD (TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	SULFATE (TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	SUSPENDED PARTICULAT	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0001	ZINC (TSP)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	DEER LODGE	POWELL	197101	198612
077	0002	ARSENIC (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	BENZENE SOL ORG(TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	CADMIUM (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	FLUORIDE (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	LEAD (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	SULFATE (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	SUSPENDED PARTICULAT	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0002	ZINC (TSP)	DEER LODGE CITY HALL	DEER LODGE	POWELL	197101	197112
077	0005	SUSPENDED PARTICULAT	LAHMAN RESIDENCE SOUTH OF GARRISON		POWELL	197101	197512
077	0018	SUSPENDED PARTICULAT	GERDTS RESIDENCE		POWELL	197501	197512
077	0024	ARSENIC (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	BARIUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	BERYLLIUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	CADMIUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	CHROMIUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	COBALT (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	COPPER (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	IRON (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	LEAD (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	MANGANESE (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	MOLYBDENUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	NICKEL (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	PM10 TOTAL 0-10UM	TERRY SMITH RANCH, OVANDO		POWELL	198501	198712
077	0024	PM10 TOTAL 0-10UM	TERRY SMITH RANCH, OVANDO		POWELL	198704	198712
077	0024	SULFATE (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198201	198212
077	0024	SULFATION RATE	TERRY SMITH RANCH, OVANDO		POWELL	198001	198112
077	0024	SUSPENDED PARTICULAT	TERRY SMITH RANCH, OVANDO		POWELL	198001	198712
077	0024	VANADIUM (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
077	0024	ZINC (TSP)	TERRY SMITH RANCH, OVANDO		POWELL	198601	198710
081	0001	AMBIENT AVG TEMPERAT	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	AMBIENT MAX TEMPERAT	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	AMBIENT MIN TEMPERAT	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	ELAPSED SAMPLE TIME	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	PM10 - LOCAL CONDITI	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	199910	
081	0001	PM10 TOTAL 0-10UM	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	198606	198704
081	0001	PM10 TOTAL 0-10UM	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	198704	

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
081	0001	PM2.5 - LOCAL CONDIT	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SAMPLE AVG BARO PRES	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SAMPLE FLOW RATE,CV	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SAMPLE MAX BARO PRES	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SAMPLE MIN BARO PRES	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SAMPLE VOLUME	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	200001	
081	0001	SUSPENDE PARTICULAT	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	HAMILTON	RAVALLI	198301	198712
081	0002	PM10 - LOCAL CONDITI	MT GOLD REALTY BUILDING,111 S HWY 93	HAMILTON	RAVALLI	199801	199910
081	0002	PM10 TOTAL 0-10UM	MT GOLD REALTY BUILDING,111 S HWY 93	HAMILTON	RAVALLI	199407	199910
081	0003	PM10 - LOCAL CONDITI	STEVENSVILLE RANGER STATION,88 MAIN ST		RAVALLI	199801	200011
081	0003	PM10 TOTAL 0-10UM	STEVENSVILLE RANGER STATION,88 MAIN ST		RAVALLI	199407	200011
081	0003	PM10 TOTAL 0-10UM	STEVENSVILLE RANGER STATION,88 MAIN ST		RAVALLI	199407	200011
081	0004	PM10 - LOCAL CONDITI	WFORK RANGER STATION;6735 WFORK RD;DARBY		RAVALLI	199801	200007
081	0004	PM10 TOTAL 0-10UM	WFORK RANGER STATION;6735 WFORK RD;DARBY		RAVALLI	199407	200007
081	0006	PM10 TOTAL 0-10UM	2 MILES E OF HWY 93, STEVENSVILLE		RAVALLI	200106	
083	0005	SUSPENDE PARTICULAT	SIDNEY BUXBAUM		RICHLAND	197301	197312
083	0010	NITRATE (TSP)	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY		RICHLAND	198401	198412
083	0010	SULFATE (TSP)	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY		RICHLAND	198301	198512
083	0010	SUSPENDE PARTICULAT	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY		RICHLAND	198301	198712
083	0011	SULFATION RATE	#1 PETERSON-MORLOCK,2.7 MI NW SIDNEY		RICHLAND	198201	198612
083	0011	SULFATION RATE	#1 PETERSON-MORLOCK,2.7 MI NW SIDNEY		RICHLAND	198501	198512
083	0012	SULFATION RATE	#2 PUBLIC WELFARE OFFICE,5TH ST &3RD AVE		RICHLAND	198201	198612
083	0012	SULFATION RATE	#2 PUBLIC WELFARE OFFICE,5TH ST &3RD AVE		RICHLAND	198501	198512
083	0013	SULFATION RATE	#3 SHELL OIL,6.1 MI E JCT HWY 16 & 23		RICHLAND	198201	198612
083	0014	SULFATION RATE	#4 YELLOWSTONE RIVER BRIDGE		RICHLAND	198201	198412
083	0015	SULFATION RATE	#5 FAIRVIEW NORTH,8.7 MI W FAIRVIEW		RICHLAND	198201	198412
083	0016	SULFATION RATE	#6 S SIDNEY PUMPER,.3 M W JCT HWY 16&200		RICHLAND	198201	198412
083	0017	SULFATION RATE	#7 S SIDNEY FLARE,.9 M W JCT HWY 16&200		RICHLAND	198201	198412
083	0018	SULFATION RATE	#8 N SIDNEY,2.1 M N SIDNEY ON LINCOLN ST		RICHLAND	198201	198412
083	0019	SULFATION RATE	#9 RICHLAND PARK ROAD,3.5 M NE SIDNEY		RICHLAND	198201	198412
083	0020	SULFATION RATE	COOKE RESIDENCE SOUTH OF SIDNEY MT		RICHLAND	198401	198412
083	0028	SULFATION RATE	LUDINGTON SIDNEY MT		RICHLAND	198501	198612
083	0029	SULFATION RATE	RIVER ROAD #1 SIDNEY MT		RICHLAND	198501	198612
083	0030	SULFATION RATE	RIVER ROAD #2 SIDNEY MT		RICHLAND	198501	198612
083	0031	SULFATION RATE	GOSSETT SIDNEY MT		RICHLAND	198501	198612
085	0001	NITRATE (TSP)	WITTE WELL		ROOSEVELT	197601	197612
085	0001	SULFATE (TSP)	WITTE WELL		ROOSEVELT	197601	197612
085	0001	SUSPENDE PARTICULAT	WITTE WELL		ROOSEVELT	197401	197612
085	0001	WIND DIRECTION	WITTE WELL		ROOSEVELT	197601	197612
085	0001	WIND SPEED	WITTE WELL		ROOSEVELT	197601	197612
085	0002	NITRATE (TSP)	WOLF POINT INT'L AIRPORT (WOLF POINT)		ROOSEVELT	198201	198412

085	0002	NITRIC OXIDE	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	197501	197512
085	0002	NITROGEN DIOXIDE	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	197501	197512
085	0002	NITROGEN TEMPERATURE	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198301	198612
085	0002	OZONE	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	197501	197512
085	0002	SULFATE (TSP)	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198201	198412
085	0002	SULFUR DIOXIDE	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198301	198412
085	0002	SUSPENDED PARTICULAT	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198201	198412
085	0002	WIND DIRECTION	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198301	198612
085	0002	WIND SPEED	WOLF POINT INT'L AIRPORT (WOLF POINT)	ROOSEVELT	198301	198612
085	0004	SULFATION RATE	BOX 506 POPLAR MT 59255	ROOSEVELT	198301	199012
085	0005	SULFATION RATE	BOX 506 POPLAR MT 59255	ROOSEVELT	198301	198412
085	0006	SULFATION RATE	BOX 506 POPLAR MT 59255	ROOSEVELT	198301	198512
085	0007	SULFATION RATE	KENCO OIL REFINERY 7 MI EAST OF WOLF PT	ROOSEVELT	198401	198512
085	0008	LIGHT SCATTER	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198701	198912
085	0008	OUTDOOR TEMPERATURE	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198501	198912
085	0008	SULFATION RATE	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198909	199012
085	0008	SULFUR DIOXIDE	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198501	198912
085	0008	WIND DIRECTION	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198501	198912
085	0008	WIND SPEED	POPULAR RIVER VALLEY ;FT.PECKRESERVATION	ROOSEVELT	198501	198912
085	0009	NITRATE (TSP)	114 3RD AVE SOUTH WOLF POINT MONTANA	ROOSEVELT	198401	198512
085	0009	SULFATE (TSP)	114 3RD AVE SOUTH WOLF POINT MONTANA	ROOSEVELT	198401	198512
085	0009	SUSPENDED PARTICULAT	114 3RD AVE SOUTH WOLF POINT MONTANA	ROOSEVELT	198401	198712
085	0010	SULFATION RATE	LONG CREEK OIL FIELD	ROOSEVELT	198401	199012
085	0011	SULFATION RATE	FORT PECK TRIBAL SITE	ROOSEVELT	198701	199012
085	0012	SUSPENDED PARTICULAT	TRIBAL BLDG, POPLAR	ROOSEVELT	198708	199012
085	0012	SUSPENDED PARTICULAT	TRIBAL BLDG, POPLAR	ROOSEVELT	198708	199309
085	0013	PM10 TOTAL 0-10UM	FORT PECK TRIBAL SITE	ROOSEVELT	199210	199512
085	0013	SUSPENDED PARTICULAT	FORT PECK TRIBAL SITE	ROOSEVELT	198701	199209
085	0014	OUTDOOR TEMPERATURE	LAW AND ORDER SITE	ROOSEVELT	199201	
085	0014	STD DEV HZ WND DIR	LAW AND ORDER SITE	ROOSEVELT	199201	
085	0014	WIND DIRECTION	LAW AND ORDER SITE	ROOSEVELT	199201	
085	0014	WIND SPEED	LAW AND ORDER SITE	ROOSEVELT	199201	
085	0015	PM10 - LOCAL CONDITI	FOURTH AVENUE, WOLF POINT, MONTANA	WOLF POINT ROOSEVELT	199801	
085	0015	PM10 TOTAL 0-10UM	FOURTH AVENUE, WOLF POINT, MONTANA	WOLF POINT ROOSEVELT	199506	
087	0003	NITROGEN DIOXIDE	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197501	197512
087	0003	NITROGEN DIOXIDE	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197601	197812
087	0003	SULFUR DIOXIDE	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197501	197512
087	0003	SULFUR DIOXIDE	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197601	197712
087	0003	SUSPENDED PARTICULAT	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197401	198012
087	0003	WIND DIRECTION	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197601	197612
087	0003	WIND SPEED	FISHER BUTTE NEAR LAME DEER	ROSEBUD	197601	197612
087	0009	ARSENIC (TSP)	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0009	BENZENE SOL ORG(TSP)	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0009	CADMIUM (TSP)	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0009	LEAD (TSP)	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0009	SUSPENDED PARTICULAT	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0009	ZINC (TSP)	KLUVER RANCH RURAL RT 1 (FORSYTH)	ROSEBUD	197201	197312
087	0021	BENZENE SOL ORG(TSP)	IRA GRESONS,137 RIVER ST, FORSYTH	ROSEBUD	197201	197212
087	0021	CADMIUM (TSP)	IRA GRESONS,137 RIVER ST, FORSYTH	ROSEBUD	197201	197212
087	0021	LEAD (TSP)	IRA GRESONS,137 RIVER ST, FORSYTH	ROSEBUD	197201	197212

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
087	0021	SUSPENDED PARTICULAT	IRA GRESONS,137 RIVER ST, FORSYTH		ROSEBUD	197201	197212
087	0021	ZINC (TSP)	IRA GRESONS,137 RIVER ST, FORSYTH		ROSEBUD	197201	197212
087	0024	CADMIUM (TSP)	BAILEY RANCH		ROSEBUD	197201	197312
087	0024	LEAD (TSP)	BAILEY RANCH		ROSEBUD	197201	197312
087	0024	SUSPENDED PARTICULAT	BAILEY RANCH		ROSEBUD	197201	197312
087	0024	ZINC (TSP)	BAILEY RANCH		ROSEBUD	197201	197312
087	0025	SUSPENDED PARTICULAT	FERRIS RANCH		ROSEBUD	197301	197312
087	0026	AMMONIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197401	197712
087	0026	ARSENIC (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	BARIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	BERYLLIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	BERYLLIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	CADMIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	CADMIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	CHROMIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	CHROMIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	COBALT (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	COBALT (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	COPPER (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	COPPER (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	IRON (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	IRON (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	LEAD (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197512
087	0026	LEAD (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	MANGANESE (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	MANGANESE (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	MOLYBDENUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	NICKEL (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	NICKEL (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	NITRATE (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197401	197812
087	0026	SULFATE (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197401	197812
087	0026	SUSPENDED PARTICULAT	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197001	197812
087	0026	SUSPENDED PARTICULAT	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197301	197312
087	0026	TITANIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	VANADIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197501	197612
087	0026	VANADIUM (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0026	ZINC (TSP)	ASHLAND RANGER DISTRICT (ASHLAND)		ROSEBUD	197701	197812
087	0027	ALUMINUM (TSP)	BN SITE, COLSTRIP MT		ROSEBUD	197810	197812
087	0027	ARSENIC (TSP)	BN SITE, COLSTRIP MT		ROSEBUD	197301	197812
087	0027	CADMIUM (TSP)	BN SITE, COLSTRIP MT		ROSEBUD	197810	197812
087	0027	CHROMIUM (TSP)	BN SITE, COLSTRIP MT		ROSEBUD	197801	197812

087	0027	COPPER (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197810	197812
087	0027	IRON (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197810	197812
087	0027	LEAD (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197801	197812
087	0027	LIGHT SCATTER	BN SITE, COLSTRIP MT	ROSEBUD	197601	197612
087	0027	MANGANESE (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197810	197812
087	0027	METHANE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	NICKEL (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197810	197812
087	0027	NITRATE (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197601	197812
087	0027	NITRATE (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197701	197712
087	0027	NITRIC OXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197601	197712
087	0027	NITROGEN DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197401	197512
087	0027	NITROGEN DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197512
087	0027	NITROGEN DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197612
087	0027	NITROGEN DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	OXIDES OF NITROGEN	BN SITE, COLSTRIP MT	ROSEBUD	197601	197712
087	0027	OZONE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197512
087	0027	OZONE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	SULFATE (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197601	197812
087	0027	SULFUR DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197301	197512
087	0027	SULFUR DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197512
087	0027	SULFUR DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197612
087	0027	SULFUR DIOXIDE	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	SUSPENDED PARTICULAT	BN SITE, COLSTRIP MT	ROSEBUD	197301	198012
087	0027	TOTAL HYDROCARBONS	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	TOTAL NMOC	BN SITE, COLSTRIP MT	ROSEBUD	197501	197712
087	0027	WIND DIRECTION	BN SITE, COLSTRIP MT	ROSEBUD	197601	197812
087	0027	WIND SPEED	BN SITE, COLSTRIP MT	ROSEBUD	197601	197812
087	0027	ZINC (TSP)	BN SITE, COLSTRIP MT	ROSEBUD	197810	197812
087	0028	ALUMINUM (TSP)	MCRAE SITE	ROSEBUD	197801	197812
087	0028	ARSENIC (TSP)	MCRAE SITE	ROSEBUD	197301	197812
087	0028	CARBON MONOXIDE	MCRAE SITE	ROSEBUD	197301	197412
087	0028	CARBON MONOXIDE	MCRAE SITE	ROSEBUD	197501	197512
087	0028	COPPER (TSP)	MCRAE SITE	ROSEBUD	197801	197812
087	0028	IRON (TSP)	MCRAE SITE	ROSEBUD	197801	197812
087	0028	LIGHT SCATTER	MCRAE SITE	ROSEBUD	197601	197612
087	0028	NITRATE (TSP)	MCRAE SITE	ROSEBUD	197801	197812
087	0028	NITRIC OXIDE	MCRAE SITE	ROSEBUD	197301	197512
087	0028	NITROGEN DIOXIDE	MCRAE SITE	ROSEBUD	197301	197512
087	0028	NITROGEN DIOXIDE	MCRAE SITE	ROSEBUD	197401	197512
087	0028	NITROGEN DIOXIDE	MCRAE SITE	ROSEBUD	197501	197712
087	0028	OXIDES OF NITROGEN	MCRAE SITE	ROSEBUD	197301	197512
087	0028	OZONE	MCRAE SITE	ROSEBUD	197301	197512
087	0028	OZONE	MCRAE SITE	ROSEBUD	197501	197512
087	0028	SULFATE (TSP)	MCRAE SITE	ROSEBUD	197801	197812
087	0028	SULFUR DIOXIDE	MCRAE SITE	ROSEBUD	197301	197512
087	0028	SULFUR DIOXIDE	MCRAE SITE	ROSEBUD	197501	197512
087	0028	SULFUR DIOXIDE	MCRAE SITE	ROSEBUD	197501	197712
087	0028	SUSPENDED PARTICULAT	MCRAE SITE	ROSEBUD	197301	197912
087	0028	WIND DIRECTION	MCRAE SITE	ROSEBUD	197601	197612
087	0028	WIND SPEED	MCRAE SITE	ROSEBUD	197601	197612

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
087	0101	OUTDOOR TEMPERATURE	FT HOUES RANGER STA. ASHLAND, MT 59003		ROSEBUD	197701	197812
087	0101	OZONE	FT HOUES RANGER STA. ASHLAND, MT 59003		ROSEBUD	197601	198312
087	0101	RELATIVE HUMIDITY	FT HOUES RANGER STA. ASHLAND, MT 59003		ROSEBUD	197701	197812
087	0101	SOLAR RADIATION	FT HOUES RANGER STA. ASHLAND, MT 59003		ROSEBUD	197701	197812
087	0304	SIZE FRACTINTD PARTI	.5 MILE SOUTH OF LAME DEER		ROSEBUD	198201	198312
087	0304	SUSPENDE PARTICULAT	.5 MILE SOUTH OF LAME DEER		ROSEBUD	198201	198512
087	0304	SUSPENDE PARTICULAT	.5 MILE SOUTH OF LAME DEER		ROSEBUD	198301	198412
087	0305	SUSPENDE PARTICULAT	LAME DEER WEST		ROSEBUD	198201	198912
087	0305	SUSPENDE PARTICULAT	LAME DEER WEST		ROSEBUD	198401	198812
087	0306	NITRATE (TSP)	BIRNEY COMMUNITY		ROSEBUD	198301	198612
087	0306	SULFATE (TSP)	BIRNEY COMMUNITY		ROSEBUD	198301	198612
087	0306	SUSPENDE PARTICULAT	BIRNEY COMMUNITY		ROSEBUD	198301	198612
087	0307	AMBIENT AVG TEMPERAT	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	AMBIENT MAX TEMPERAT	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	AMBIENT MIN TEMPERAT	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	BAROMETRIC PRESSURE	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199204	
087	0307	ELAPSED SAMPLE TIME	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	OUTDOOR TEMPERATURE	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199204	
087	0307	PM10 - LOCAL CONDITI	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199801	
087	0307	PM10 - LOCAL CONDITI	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199801	200001
087	0307	PM10 TOTAL 0-10UM	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	198811	
087	0307	PM10 TOTAL 0-10UM	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199701	
087	0307	PM10 TOTAL 0-10UM	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199801	199912
087	0307	PM2.5 - LOCAL CONDIT	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	RAIN/MELT PRECIP	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199308	
087	0307	SAMPLE AVG BARO PRES	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	SAMPLE FLOW RATE,CV	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	SAMPLE MAX BARO PRES	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	SAMPLE MIN BARO PRES	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	SAMPLE VOLUME	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	200001	
087	0307	STD DEV HZ WND DIR	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199202	
087	0307	SUSPENDE PARTICULAT	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	198501	198912
087	0307	WIND DIRECTION	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199202	
087	0307	WIND SPEED	INTERSECTION OF HWY 212 & 39, LAME DEER		ROSEBUD	199202	
087	0614	OUTDOOR TEMPERATURE	MPC #14, MET TOWER, COLSTRIP		ROSEBUD	197312	199206
087	0614	STD DEV HZ WND DIR	MPC #14, MET TOWER, COLSTRIP		ROSEBUD	198608	199206
087	0614	TEMPERATURE DIFFEREN	MPC #14, MET TOWER, COLSTRIP		ROSEBUD	198311	199206
087	0614	WIND DIRECTION	MPC #14, MET TOWER, COLSTRIP		ROSEBUD	197311	199206
087	0614	WIND SPEED	MPC #14, MET TOWER, COLSTRIP		ROSEBUD	197311	199206
087	0700	FLUORIDE(PAPER/GAS)	MPC #3, CEDAR AVE HILL, COLSTRIP		ROSEBUD	197112	198812
087	0700	NITROGEN DIOXIDE	MPC #3, CEDAR AVE HILL, COLSTRIP		ROSEBUD	198204	

087	0700	OUTDOOR TEMPERATURE	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198204	199206
087	0700	PM10 - LOCAL CONDITI	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	199801	
087	0700	PM10 TOTAL 0-10UM	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198912	199012
087	0700	PM10 TOTAL 0-10UM	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198912	199712
087	0700	STD DEV HZ WND DIR	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198204	199206
087	0700	SULFATION RATE	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	197112	198812
087	0700	SULFUR DIOXIDE	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198204	
087	0700	SUSPENDE PARTICULAT	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	197201	199012
087	0700	TOTAL DUSTFALL	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	197112	199601
087	0700	WIND DIRECTION	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198204	199206
087	0700	WIND SPEED	MPC #3, CEDAR AVE HILL, COLSTRIP	ROSEBUD	198204	199206
087	0701	FLUORIDE(PAPER/GAS)	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	197301	198812
087	0701	NITROGEN DIOXIDE	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0701	OUTDOOR TEMPERATURE	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0701	PM10 - LOCAL CONDITI	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	199801	
087	0701	PM10 TOTAL 0-10UM	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	199207	199712
087	0701	STD DEV HZ WND DIR	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0701	SULFATION RATE	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	197301	198812
087	0701	SULFUR DIOXIDE	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0701	SUSPENDE PARTICULAT	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	197212	198812
087	0701	SUSPENDE PARTICULAT	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	197212	199206
087	0701	TOTAL DUSTFALL	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	197212	199601
087	0701	WIND DIRECTION	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0701	WIND SPEED	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	ROSEBUD	198106	
087	0702	FLUORIDE(PAPER/GAS)	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	197301	198812
087	0702	NITROGEN DIOXIDE	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0702	OUTDOOR TEMPERATURE	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0702	PM10 TOTAL 0-10UM	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	199207	199507
087	0702	STD DEV HZ WND DIR	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0702	SULFATION RATE	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	197301	198812
087	0702	SULFUR DIOXIDE	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0702	SUSPENDE PARTICULAT	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	197212	198812
087	0702	SUSPENDE PARTICULAT	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	197212	199206
087	0702	TOTAL DUSTFALL	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	197212	199512
087	0702	WIND DIRECTION	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0702	WIND SPEED	MPC #2, 5&6 POND WEST, COLSTRIP	ROSEBUD	198106	
087	0703	FLUORIDE(PAPER/GAS)	PO BOX 38 COLSTRIP MT	ROSEBUD	198101	198212
087	0703	NITROGEN DIOXIDE	PO BOX 38 COLSTRIP MT	ROSEBUD	198201	198212
087	0703	SULFATION RATE	PO BOX 38 COLSTRIP MT	ROSEBUD	198101	198112
087	0703	SULFUR DIOXIDE	PO BOX 38 COLSTRIP MT	ROSEBUD	198201	198212
087	0703	SUSPENDE PARTICULAT	PO BOX 38 COLSTRIP MT	ROSEBUD	198101	198212
087	0703	TOTAL DUSTFALL	PO BOX 38 COLSTRIP MT	ROSEBUD	198101	198112
087	0704	FLUORIDE(PAPER/GAS)	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	198309	198812
087	0704	NITROGEN DIOXIDE	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	197701	199206
087	0704	OUTDOOR TEMPERATURE	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	198108	199206
087	0704	STD DEV HZ WND DIR	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	198108	199206
087	0704	SULFATION RATE	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	198301	198812
087	0704	SULFUR DIOXIDE	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	197701	199206
087	0704	SUSPENDE PARTICULAT	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	197708	198812
087	0704	SUSPENDE PARTICULAT	MPC #4, HAWTHORNE HILL, COLSTRIP	ROSEBUD	197708	199206



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
087	0704	TOTAL DUSTFALL	MPC #4, HAWTHORNE HILL, COLSTRIP		ROSEBUD	197712	199206
087	0704	WIND DIRECTION	MPC #4, HAWTHORNE HILL, COLSTRIP		ROSEBUD	198108	199206
087	0704	WIND SPEED	MPC #4, HAWTHORNE HILL, COLSTRIP		ROSEBUD	198108	199206
087	0705	FLUORIDE(PAPER/GAS)	MPC #5, SNIDER RANCH, COLSTRIP		ROSEBUD	197904	198812
087	0705	SULFATION RATE	MPC #5, SNIDER RANCH, COLSTRIP		ROSEBUD	197904	198812
087	0705	TOTAL DUSTFALL	MPC #5, SNIDER RANCH, COLSTRIP		ROSEBUD	197904	198112
087	0706	FLUORIDE(PAPER/GAS)	MPC #6, NORTH FORK COW CREEK, COLSTRIP		ROSEBUD	197212	198812
087	0706	SULFATION RATE	MPC #6, NORTH FORK COW CREEK, COLSTRIP		ROSEBUD	197212	198812
087	0707	FLUORIDE(PAPER/GAS)	MPC #7, AREA B SOUTH, COLSTRIP		ROSEBUD	197209	198812
087	0707	SULFATION RATE	MPC #7, AREA B SOUTH, COLSTRIP		ROSEBUD	197209	198812
087	0708	FLUORIDE(PAPER/GAS)	MPC #8, AIRPORT SITE, COLSTRIP		ROSEBUD	197209	198812
087	0708	SULFATION RATE	MPC #8, AIRPORT SITE, COLSTRIP		ROSEBUD	197209	198812
087	0709	FLUORIDE(PAPER/GAS)	MPC #9, AREA A NORTH, COLSTRIP		ROSEBUD	197209	198812
087	0709	SULFATION RATE	MPC #9, AREA A NORTH, COLSTRIP		ROSEBUD	197209	198812
087	0710	FLUORIDE(PAPER/GAS)	MPC #10, GOBBLERS KNOB, COLSTRIP		ROSEBUD	197209	198812
087	0710	SULFATION RATE	MPC #10, GOBBLERS KNOB, COLSTRIP		ROSEBUD	197209	198812
087	0711	FLUORIDE(PAPER/GAS)	MPC #11,SOUTH FORK OF COW CREEK,COLSTRIP		ROSEBUD	197209	198812
087	0711	SULFATION RATE	MPC #11,SOUTH FORK OF COW CREEK,COLSTRIP		ROSEBUD	197209	198812
087	0712	FLUORIDE(PAPER/GAS)	MPC #12, MCDONALDS, COLSTRIP		ROSEBUD	197209	198812
087	0712	SULFATION RATE	MPC #12, MCDONALDS, COLSTRIP		ROSEBUD	197209	198812
087	0713	FLUORIDE(PAPER/GAS)	MPC #13, PROSPECTOR HILL, COLSTRIP		ROSEBUD	197212	198812
087	0713	SULFATION RATE	MPC #13, PROSPECTOR HILL, COLSTRIP		ROSEBUD	197212	198812
087	0713	TOTAL DUSTFALL	MPC #13, PROSPECTOR HILL, COLSTRIP		ROSEBUD	197212	198312
087	0714	PM10 - LOCAL CONDITI	WECO #1-WEST OF GOLF COURSE, COLSTRIP		ROSEBUD	199801	
087	0714	PM10 TOTAL 0-10UM	WECO #1-WEST OF GOLF COURSE, COLSTRIP		ROSEBUD	199205	199712
087	0714	SUSPENDED PARTICULAT	WECO #1-WEST OF GOLF COURSE, COLSTRIP		ROSEBUD	198101	199204
087	0714	SUSPENDED PARTICULAT	WECO #1-WEST OF GOLF COURSE, COLSTRIP		ROSEBUD	198702	199012
087	0715	SUSPENDED PARTICULAT	WECO #2-E TOWN ENTRANCE,HIWAY 39,COLSTRIP		ROSEBUD	198101	198412
087	0716	SUSPENDED PARTICULAT	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP		ROSEBUD	198101	198412
087	0716	TOTAL DUSTFALL	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP		ROSEBUD	198101	198412
087	0717	SUSPENDED PARTICULAT	WECO #4-AREA A-INSIDE RR LOOP & LOADOUT		ROSEBUD	198101	198412
087	0717	TOTAL DUSTFALL	WECO #4-AREA A-INSIDE RR LOOP & LOADOUT		ROSEBUD	198101	198412
087	0718	SUSPENDED PARTICULAT	WECO #5-NEAR LOADOUT-N RR LOOP, COLSTRIP		ROSEBUD	198101	198212
087	0719	SUSPENDED PARTICULAT	WECO #6-W COAL PILE AREA IN BULL PASTURE		ROSEBUD	198101	198212
087	0719	TOTAL DUSTFALL	WECO #6-W COAL PILE AREA IN BULL PASTURE		ROSEBUD	198101	198112
087	0720	SUSPENDED PARTICULAT	WECO #7-AREA LOADOUT IN RR TRACK LOOP		ROSEBUD	198101	198412
087	0720	TOTAL DUSTFALL	WECO #7-AREA LOADOUT IN RR TRACK LOOP		ROSEBUD	198101	198412
087	0721	SUSPENDED PARTICULAT	WECO #8-S TOWN IN PIT 6,RECLAIM AREA		ROSEBUD	198101	198412
087	0722	OUTDOOR TEMPERATURE	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP		ROSEBUD	198901	
087	0722	STD DEV HZ WND DIR	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP		ROSEBUD	198901	
087	0722	SUSPENDED PARTICULAT	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP		ROSEBUD	198001	198312

087	0722	WIND DIRECTION	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	ROSEBUD	198901	
087	0722	WIND SPEED	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	ROSEBUD	198901	
087	0723	SUSPENDED PARTICULAT	PEABODY-BIG SKY #2,SUBSTATION,COLSTRIP	ROSEBUD	198001	199004
087	0725	PM10 - LOCAL CONDITI	PEABODY-BIG SKY POWDER MAGAZINE #4	ROSEBUD	199801	
087	0725	PM10 TOTAL 0-10UM	PEABODY-BIG SKY POWDER MAGAZINE #4	ROSEBUD	198901	199712
087	0725	SUSPENDED PARTICULAT	PEABODY-BIG SKY POWDER MAGAZINE #4	ROSEBUD	198001	198812
087	0726	PM10 - LOCAL CONDITI	WECO #9-S TOWN AREA B-W HIWAY 39	ROSEBUD	199801	
087	0726	PM10 TOTAL 0-10UM	WECO #9-S TOWN AREA B-W HIWAY 39	ROSEBUD	199205	199712
087	0726	SUSPENDED PARTICULAT	WECO #9-S TOWN AREA B-W HIWAY 39	ROSEBUD	198101	199204
087	0727	PM10 - LOCAL CONDITI	WECO #10-S TOWN AREA B-RANGE HILLSIDE	ROSEBUD	199801	
087	0727	PM10 TOTAL 0-10UM	WECO #10-S TOWN AREA B-RANGE HILLSIDE	ROSEBUD	199205	199712
087	0727	SUSPENDED PARTICULAT	WECO #10-S TOWN AREA B-RANGE HILLSIDE	ROSEBUD	198101	199204
087	0728	PM10 - LOCAL CONDITI	WECO #11-W TOWN AREA C-FENCED PASTURE	ROSEBUD	199801	
087	0728	PM10 TOTAL 0-10UM	WECO #11-W TOWN AREA C-FENCED PASTURE	ROSEBUD	199205	199712
087	0728	SUSPENDED PARTICULAT	WECO #11-W TOWN AREA C-FENCED PASTURE	ROSEBUD	198101	199204
087	0728	TOTAL DUSTFALL	WECO #11-W TOWN AREA C-FENCED PASTURE	ROSEBUD	198107	198412
087	0729	PM10 - LOCAL CONDITI	WECO #13-W TOWN AREA C-CATTLE PASTURE	ROSEBUD	199801	
087	0729	PM10 TOTAL 0-10UM	WECO #13-W TOWN AREA C-CATTLE PASTURE	ROSEBUD	199205	199712
087	0729	SUSPENDED PARTICULAT	WECO #13-W TOWN AREA C-CATTLE PASTURE	ROSEBUD	198706	199204
087	0729	WIND DIRECTION	WECO #13-W TOWN AREA C-CATTLE PASTURE	ROSEBUD	198101	198212
087	0729	WIND SPEED	WECO #13-W TOWN AREA C-CATTLE PASTURE	ROSEBUD	198101	198212
087	0730	WIND DIRECTION	WECO #13-NE TIP RR LOOP AREA A	ROSEBUD	198201	198712
087	0730	WIND SPEED	WECO #13-NE TIP RR LOOP AREA A	ROSEBUD	198201	198712
087	0731	SUSPENDED PARTICULAT	WECO #5-3 MI NE COLSTRIP-AREA D WEST	ROSEBUD	198201	199105
087	0732	PM10 - LOCAL CONDITI	WESTERN ENERGY #14, COLSTRIP	ROSEBUD	199801	
087	0732	PM10 TOTAL 0-10UM	WESTERN ENERGY #14, COLSTRIP	ROSEBUD	199205	199712
087	0732	SUSPENDED PARTICULAT	WESTERN ENERGY #14, COLSTRIP	ROSEBUD	199003	199204
087	0733	PM10 - LOCAL CONDITI	WESTERN ENERGY CO - WECO #12, COLSTRIP	ROSEBUD	199801	
087	0733	PM10 TOTAL 0-10UM	WESTERN ENERGY CO - WECO #12, COLSTRIP	ROSEBUD	199205	199712
087	0733	SUSPENDED PARTICULAT	WESTERN ENERGY CO - WECO #12, COLSTRIP	ROSEBUD	199105	199204
087	0735	SUSPENDED PARTICULAT	PEABODY-BIG SKY #5,TIPPLE	ROSEBUD	198001	199004
087	0736	SUSPENDED PARTICULAT	PEABODY-BIG SKY #6,COULEE	ROSEBUD	198001	199004
087	0737	SUSPENDED PARTICULAT	PEABODY-BIG SKY #8,HIWAYE	ROSEBUD	198001	198512
087	0738	OUTDOOR TEMPERATURE	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	198901	
087	0738	PM10 - LOCAL CONDITI	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	199801	
087	0738	PM10 TOTAL 0-10UM	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	198901	199712
087	0738	STD DEV HZ WND DIR	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	198901	
087	0738	WIND DIRECTION	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	198901	
087	0738	WIND SPEED	PEABODY-BIG SKY #9,UPPER AREA B	ROSEBUD	198901	
087	0739	PM10 - LOCAL CONDITI	PEABODY-BIG SKY #10,LOWER AREA B	ROSEBUD	199801	
087	0739	PM10 TOTAL 0-10UM	PEABODY-BIG SKY #10,LOWER AREA B	ROSEBUD	198907	199012
087	0739	PM10 TOTAL 0-10UM	PEABODY-BIG SKY #10,LOWER AREA B	ROSEBUD	198907	199712
087	0760	BAROMETRIC PRESSURE	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	
087	0760	DEW POINT	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	
087	0760	LIGHT SCATTER	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	
087	0760	NITROGEN DIOXIDE	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	200003
087	0760	OUTDOOR TEMPERATURE	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	
087	0760	PM10 TOTAL 0-10UM	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	199308	199612
087	0760	RAIN/MELT PRECIP	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	199702
087	0760	SOLAR RADIATION	NO CHEYENNE, MORNINGSTAR, COLSTRIP	ROSEBUD	198103	

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
087	0760	STD DEV HZ WND DIR	NO CHEYENNE, MORNINGSTAR, COLSTRIP		ROSEBUD	198103	
087	0760	SULFUR DIOXIDE	NO CHEYENNE, MORNINGSTAR, COLSTRIP		ROSEBUD	198103	200003
087	0760	SUSPENDED PARTICULAT	NO CHEYENNE, MORNINGSTAR, COLSTRIP		ROSEBUD	198103	199309
087	0760	WIND DIRECTION	NO CHEYENNE, MORNINGSTAR, COLSTRIP		ROSEBUD	198103	
087	0760	WIND SPEED	NO CHEYENNE, MORNINGSTAR, COLSTRIP		ROSEBUD	198103	
087	0761	DEW POINT	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	199501
087	0761	NITROGEN DIOXIDE	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	200003
087	0761	OUTDOOR TEMPERATURE	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	
087	0761	RAIN/MELT PRECIP	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	
087	0761	SOLAR RADIATION	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	199501
087	0761	STD DEV HZ WND DIR	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	
087	0761	SULFUR DIOXIDE	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	200003
087	0761	SUSPENDED PARTICULAT	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	199309
087	0761	WIND DIRECTION	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	
087	0761	WIND SPEED	NO CHEYENNE, GARFIELD PEAK, COLSTRIP		ROSEBUD	198103	
087	0762	DEW POINT	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	199501
087	0762	NITROGEN DIOXIDE	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	200003
087	0762	OUTDOOR TEMPERATURE	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	
087	0762	RAIN/MELT PRECIP	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	199702
087	0762	SOLAR RADIATION	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	199501
087	0762	STD DEV HZ WND DIR	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	
087	0762	SULFUR DIOXIDE	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	200003
087	0762	SUSPENDED PARTICULAT	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	199309
087	0762	WIND DIRECTION	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	
087	0762	WIND SPEED	NO CHEYENNE, BADGER PEAK, COLSTRIP		ROSEBUD	198103	
087	0763	OUTDOOR TEMPERATURE	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198904	199804
087	0763	PM10 - LOCAL CONDITI	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	199801	199904
087	0763	PM10 TOTAL 0-10UM	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198907	199012
087	0763	PM10 TOTAL 0-10UM	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198907	199712
087	0763	STD DEV HZ WND DIR	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198904	199804
087	0763	SULFUR DIOXIDE	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198907	199804
087	0763	WIND DIRECTION	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198904	199804
087	0763	WIND SPEED	ROSEBUD ENERGY #1, 7 MI N COLSTRIP		ROSEBUD	198904	199804
087	0764	PM10 TOTAL 0-10UM	ROSEBUD ENERGY #2, 6 MI N COLSTRIP		ROSEBUD	198906	199208
087	0764	SULFUR DIOXIDE	ROSEBUD ENERGY #2, 6 MI N COLSTRIP		ROSEBUD	198905	199208
087	0765	PM10 TOTAL 0-10UM	ROSEBUD ENERGY #3-WIMERS,6 MI N COLSTRIP		ROSEBUD	198906	199208
087	0765	SULFUR DIOXIDE	ROSEBUD ENERGY #3-WIMERS,6 MI N COLSTRIP		ROSEBUD	198905	199208
087	0766	PM10 - LOCAL CONDITI	CELP ROSEBUD ENERGY COLSTRIP #1(6 MI N)		ROSEBUD	199904	
089	0001	BENZENE SOL ORG(TSP)	MILLER RESIDENCE	THOMPSON FALLS	SANDERS	197201	197212
089	0001	CADMIUM (TSP)	MILLER RESIDENCE	THOMPSON FALLS	SANDERS	197201	197212
089	0001	LEAD (TSP)	MILLER RESIDENCE	THOMPSON FALLS	SANDERS	197201	197212

089	0001	SUSPENDED PARTICULAT	MILLER RESIDENCE	THOMPSON FALLS	SANDERS	197201	197312
089	0001	ZINC (TSP)	MILLER RESIDENCE	THOMPSON FALLS	SANDERS	197201	197212
089	0002	SUSPENDED PARTICULAT	THOMPSON FALLS, MT	THOMPSON FALLS	SANDERS	197801	197812
089	0003	ANTIMONY (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198406	198512
089	0003	ARSENIC (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198406	198512
089	0003	CADMIUM (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0003	CHROMIUM (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0003	COPPER (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0003	IRON (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0003	LEAD (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0003	PM10 - LOCAL CONDITI	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	199801	199907
089	0003	PM10 TOTAL 0-10UM	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198501	198704
089	0003	PM10 TOTAL 0-10UM	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198704	199907
089	0003	SUSPENDED PARTICULAT	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198301	198712
089	0003	ZINC (TSP)	SANDERS CO COURTHOUSE, THOMPSON FALLS	THOMPSON FALLS	SANDERS	198401	198412
089	0004	OUTDOOR TEMPERATURE	DIXON, OLD TRIBAL HEADQUARTERS		SANDERS	198401	198612
089	0004	SUSPENDED PARTICULAT	DIXON, OLD TRIBAL HEADQUARTERS		SANDERS	198401	198612
089	0004	WIND DIRECTION	DIXON, OLD TRIBAL HEADQUARTERS		SANDERS	198401	198612
089	0004	WIND SPEED	DIXON, OLD TRIBAL HEADQUARTERS		SANDERS	198401	198612
089	0005	PM10 TOTAL 0-10UM	RAILROAD,MADISON ST & PRESTON AVE,TFALLS	THOMPSON FALLS	SANDERS	199010	199112
089	0006	PM10 TOTAL 0-10UM	MUSTER RANCH, N OF THOMPSON FALLS	THOMPSON FALLS	SANDERS	199010	199112
089	0007	AMBIENT AVG TEMPERAT	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	AMBIENT MAX TEMPERAT	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	AMBIENT MIN TEMPERAT	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	ELAPSED SAMPLE TIME	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	PM10 - LOCAL CONDITI	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	199910	
089	0007	PM10 TOTAL 0-10UM	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	199910	
089	0007	PM2.5 - LOCAL CONDIT	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	SAMPLE AVG BARO PRES	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	SAMPLE FLOW RATE,CV	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	SAMPLE MAX BARO PRES	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	SAMPLE MIN BARO PRES	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0007	SAMPLE VOLUME	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	THOMPSON FALLS	SANDERS	200001	
089	0101	PM10 TOTAL 0-10UM	101 MAIN STREET		SANDERS	199501	199512
091	0001	SULFATION RATE	BOX 506 POPLAR MT 59255		SHERIDAN	198301	198512
093	0001	ARSENIC (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	196201	197212
093	0001	BENZENE SOL ORG(TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	196201	197112
093	0001	CADMIUM (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0001	FLUORIDE (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	196201	196212
093	0001	LEAD (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0001	SULFATE (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0001	SUSPENDED PARTICULAT	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	196201	197212
093	0001	ZINC (TSP)	HARRISON AVE FIRE STATION #5	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0002	ARSENIC (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0002	BENZENE SOL ORG(TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0002	CADMIUM (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0002	FLUORIDE (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0002	LEAD (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0002	SULFATE (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0002	SUSPENDED PARTICULAT	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197212

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
093	0002	ZINC (TSP)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0003	ARSENIC (TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0003	BENZENE SOL ORG(TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197712
093	0003	CADMIUM (TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0003	LEAD (TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0003	SULFATE (TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0003	SUSPENDED PARTICULAT	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197712
093	0003	ZINC (TSP)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0004	ARSENIC (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	BENZENE SOL ORG(TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	CADMIUM (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	FLUORIDE (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	LEAD (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	SULFATE (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	SUSPENDED PARTICULAT	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0004	ZINC (TSP)	WHITTIER SCHOOL OTTAWA ST	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0005	ALUMINUM (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0005	AMBIENT AVG TEMPERAT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	AMBIENT MAX TEMPERAT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	AMBIENT MIN TEMPERAT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	ANTIMONY (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0005	ARSENIC (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	198312
093	0005	BENZENE SOL ORG(TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0005	CADMIUM (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197102	198312
093	0005	CHROMIUM (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0005	COPPER (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	198312
093	0005	ELAPSED SAMPLE TIME	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	FLUORIDE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0005	IRON (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0005	LEAD (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	198312
093	0005	LIGHT SCATTER	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198907	199303
093	0005	MANGANESE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0005	NICKEL (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0005	NITRATE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197601	198012
093	0005	PM10 - LOCAL CONDITI	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	200001	
093	0005	PM10 TOTAL 0-10UM	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198501	198712
093	0005	PM10 TOTAL 0-10UM	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198705	199711
093	0005	PM10 TOTAL 0-10UM	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198910	199012
093	0005	PM10 TOTAL 0-10UM	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199308	
093	0005	PM2.5 - LOCAL CONDIT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	SAMPLE AVG BARO PRES	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	

093	0005	SAMPLE FLOW RATE,CV	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	SAMPLE MAX BARO PRES	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	SAMPLE MIN BARO PRES	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	SAMPLE VOLUME	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	199902	
093	0005	SULFATE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	197812
093	0005	SULFATE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197601	198212
093	0005	SULFATE (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198201	198212
093	0005	SUSPENDED PARTICULAT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197101	198712
093	0005	SUSPENDED PARTICULAT	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	198201	198412
093	0005	VANADIUM (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0005	ZINC (TSP)	GREELEY SCHOOL, SILVER BOW BLVD	BUTTE-SILVER BO	SILVER BOW	197102	198312
093	0006	ARSENIC (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0006	BENZENE SOL ORG(TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0006	CADMIUM (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0006	FLUORIDE (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0006	LEAD (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0006	SULFATE (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0006	SUSPENDED PARTICULAT	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0006	ZINC (TSP)	COURTHOUSE MONTANA & GRANIT	BUTTE-SILVER BO	SILVER BOW	197101	197212
093	0007	ARSENIC (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	BENZENE SOL ORG(TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	CADMIUM (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	FLUORIDE (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	LEAD (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	SULFATE (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	SUSPENDED PARTICULAT	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0007	ZINC (TSP)	EMERSON SCHOOL MARSHA & PHILLIPS	BUTTE-SILVER BO	SILVER BOW	197101	197112
093	0008	PM10 TOTAL 0-10UM	BUTTE-GREENHOUSE, SW CORNER FLORAL/MEADE	BUTTE-SILVER BO	SILVER BOW	199101	199206
093	0010	ARSENIC (TSP)	2201 COTTONWOOD DRIVE	BUTTE-SILVER BO	SILVER BOW	197201	197212
093	0010	CADMIUM (TSP)	2201 COTTONWOOD DRIVE	BUTTE-SILVER BO	SILVER BOW	197201	197212
093	0010	LEAD (TSP)	2201 COTTONWOOD DRIVE	BUTTE-SILVER BO	SILVER BOW	197201	197212
093	0010	SUSPENDED PARTICULAT	2201 COTTONWOOD DRIVE	BUTTE-SILVER BO	SILVER BOW	197201	197212
093	0010	ZINC (TSP)	2201 COTTONWOOD DRIVE	BUTTE-SILVER BO	SILVER BOW	197201	197212
093	0011	ALUMINUM (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	ARSENIC (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	CADMIUM (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	COPPER (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	IRON (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	LEAD (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0011	SUSPENDED PARTICULAT	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197301	198012
093	0011	ZINC (TSP)	ATKINS RES 139 MISSOULA AVE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0012	SUSPENDED PARTICULAT	HARRISON SCHOOL	BUTTE-SILVER BO	SILVER BOW	197401	197412
093	0013	SUSPENDED PARTICULAT	HILLCREST	BUTTE-SILVER BO	SILVER BOW	197401	197512
093	0014	ALUMINUM (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0014	ARSENIC (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	CADMIUM (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	CHROMIUM (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	COPPER (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	IRON (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0014	LEAD (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
093	0014	MANGANESE (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	NICKEL (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	NITRATE (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	SULFATE (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0014	SULFATE (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	SUSPENDED PARTICULAT	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197501	197912
093	0014	VANADIUM (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0014	ZINC (TSP)	RICHER RESIDENCE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0015	CARBON MONOXIDE	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	BUTTE-SILVER BO	SILVER BOW	197701	197912
093	0015	NITROGEN DIOXIDE	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	BUTTE-SILVER BO	SILVER BOW	197701	197712
093	0015	OZONE	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	BUTTE-SILVER BO	SILVER BOW	197701	197712
093	0016	ALUMINUM (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	ARSENIC (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	CADMIUM (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	COPPER (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	IRON (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	LEAD (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0016	SUSPENDED PARTICULAT	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197701	197812
093	0016	ZINC (TSP)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0017	ALUMINUM (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	ARSENIC (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	CADMIUM (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	CHROMIUM (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	COPPER (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	IRON (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	LEAD (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	MANGANESE (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	NICKEL (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	NITRATE (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	SULFATE (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0017	SULFATE (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	SUSPENDED PARTICULAT	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	198312
093	0017	VANADIUM (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0017	ZINC (TSP)	HEBGEN PARK #1	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0018	ALUMINUM (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0018	ARSENIC (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	CADMIUM (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	CARBON MONOXIDE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0018	CHROMIUM (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	COPPER (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	IRON (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197912

093	0018	LEAD (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	LIGHT SCATTER	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	MANGANESE (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	METHANE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0018	NICKEL (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	NITRATE (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0018	NITRIC OXIDE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	198001	198112
093	0018	NITROGEN DIOXIDE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198112
093	0018	OXIDES OF NITROGEN	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	198001	198112
093	0018	OZONE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198112
093	0018	SULFATE (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0018	SULFATE (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198212
093	0018	SULFUR DIOXIDE	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0018	SUSPENDED PARTICULAT	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198312
093	0018	TOTAL HYDROCARBONS	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0018	VANADIUM (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197901	198012
093	0018	WIND DIRECTION	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198112
093	0018	WIND SPEED	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	198112
093	0018	ZINC (TSP)	HEBGEN PARK #2	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0019	ALUMINUM (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0019	ARSENIC (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	CADMIUM (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	CHROMIUM (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	COPPER (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	IRON (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0019	LEAD (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	MANGANESE (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	NICKEL (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	NITRATE (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0019	SULFATE (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197812
093	0019	SULFATE (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198212
093	0019	SUSPENDED PARTICULAT	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	198312
093	0019	VANADIUM (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197901	198012
093	0019	ZINC (TSP)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0020	ALUMINUM (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0020	ARSENIC (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	CADMIUM (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	CHROMIUM (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197901	198012
093	0020	COPPER (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	IRON (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0020	LEAD (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	MANGANESE (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	NICKEL (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197901	198012
093	0020	NITRATE (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	SULFATE (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198012
093	0020	SUSPENDED PARTICULAT	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	198312
093	0020	VANADIUM (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197901	198012
093	0020	ZINC (TSP)	FLORAL PARK	BUTTE-SILVER BO	SILVER BOW	197801	197912
093	0022	CARBON MONOXIDE	CONTINENTAL DR & ALPINE, BUTTE		SILVER BOW	198709	198812
093	0022	LIGHT SCATTER	CONTINENTAL DR & ALPINE, BUTTE		SILVER BOW	198709	198812



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
093	0022	WIND DIRECTION	CONTINENTAL DR & ALPINE, BUTTE		SILVER BOW	198709	198812
093	0022	WIND SPEED	CONTINENTAL DR & ALPINE, BUTTE		SILVER BOW	198709	198812
093	0029	SUSPENDED PARTICULAT	BLAINE SCHOOL,N.MAIN,WALKERVILLE	BUTTE-SILVER BO	SILVER BOW	198001	198212
093	0031	PM10 TOTAL 0-10UM	BEAL MOUNTAIN MINE-LITTLE GULCH #1		SILVER BOW	198712	198809
093	0031	PM10 TOTAL 0-10UM	BEAL MOUNTAIN MINE-LITTLE GULCH #1		SILVER BOW	198801	199012
093	0032	PM10 TOTAL 0-10UM	BEAL MOUNTAIN MINE - WHITE PINE CR #2		SILVER BOW	198712	199003
093	0032	SUSPENDED PARTICULAT	BEAL MOUNTAIN MINE - WHITE PINE CR #2		SILVER BOW	198804	198810
093	0033	ANTIMONY(PM10)	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199101	199303
093	0033	ARSENIC (PM10)	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199101	199303
093	0033	CHROMIUM (PM10)	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199101	199303
093	0033	LEAD (PM10)	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199101	199303
093	0033	PM10 - LOCAL CONDITI	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199801	
093	0033	PM10 TOTAL 0-10UM	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	198712	199712
093	0033	ZINC (PM10)	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3		SILVER BOW	199101	199303
093	0034	OUTDOOR TEMPERATURE	BEAL MOUNTAIN, WEATHER STATION #4		SILVER BOW	199001	199512
093	0034	STD DEV HZ WND DIR	BEAL MOUNTAIN, WEATHER STATION #4		SILVER BOW	198910	199512
093	0034	WIND DIRECTION	BEAL MOUNTAIN, WEATHER STATION #4		SILVER BOW	198712	199512
093	0034	WIND SPEED	BEAL MOUNTAIN, WEATHER STATION #4		SILVER BOW	198712	199512
093	0035	ANTIMONY(PM10)	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	199101	199104
093	0035	ARSENIC (PM10)	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	199101	199104
093	0035	CHROMIUM (PM10)	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	199101	199104
093	0035	LEAD (PM10)	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	199101	199104
093	0035	PM10 TOTAL 0-10UM	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	198811	199104
093	0035	ZINC (PM10)	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5		SILVER BOW	199101	199104
093	0036	ANTIMONY(PM10)	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199101	199303
093	0036	ARSENIC (PM10)	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199101	199303
093	0036	CHROMIUM (PM10)	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199101	199303
093	0036	LEAD (PM10)	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199101	199303
093	0036	PM10 - LOCAL CONDITI	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199801	
093	0036	PM10 TOTAL 0-10UM	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	198810	199012
093	0036	PM10 TOTAL 0-10UM	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	198810	199712
093	0036	SUSPENDED PARTICULAT	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	198810	199102
093	0036	ZINC (PM10)	PEGASUS BEAL MOUNTAIN MINE #6		SILVER BOW	199101	199303
093	0037	ANTIMONY(PM10)	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199101	199106
093	0037	ARSENIC (PM10)	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199101	199106
093	0037	CHROMIUM (PM10)	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199101	199106
093	0037	LEAD (PM10)	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199101	199106
093	0037	PM10 TOTAL 0-10UM	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199004	199106
093	0037	ZINC (PM10)	BEAL MOUNTAIN, OFFICE SITE #7		SILVER BOW	199101	199106
093	0038	ANTIMONY(PM10)	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199303
093	0038	ARSENIC (PM10)	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199303

093	0038	CHROMIUM (PM10)	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199303
093	0038	LEAD (PM10)	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199303
093	0038	PM10 - LOCAL CONDITI	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199801	
093	0038	PM10 TOTAL 0-10UM	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199712
093	0038	ZINC (PM10)	BEAL MOUNTAIN-CRUSHER UPWIND #8		SILVER BOW	199106	199303
093	0041	ARSENIC (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0041	CADMIUM (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0041	COPPER (PM10)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	199110	199912
093	0041	COPPER (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0041	IRON (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0041	LEAD (PM10)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	199110	199912
093	0041	LEAD (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0041	MOLYBDENUM (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0041	PM10 - LOCAL CONDITI	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	199801	199912
093	0041	PM10 TOTAL 0-10UM	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	199110	199712
093	0041	SUSPENDED PARTICULAT	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0041	TOTAL DUSTFALL	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0041	WIND DIRECTION	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0041	WIND SPEED	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0041	ZINC (TSP)	MONTANA RESOURCES-ALPINE, HAYS STREET	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0042	ARSENIC (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0042	CADMIUM (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0042	COPPER (PM10)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	199110	
093	0042	COPPER (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0042	IRON (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0042	LEAD (PM10)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	199110	
093	0042	LEAD (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0042	MOLYBDENUM (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0042	PM10 - LOCAL CONDITI	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	199801	
093	0042	PM10 TOTAL 0-10UM	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	199110	199712
093	0042	SUSPENDED PARTICULAT	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0042	TOTAL DUSTFALL	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0042	WIND DIRECTION	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	198412
093	0042	WIND SPEED	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	198412
093	0042	ZINC (TSP)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0043	ARSENIC (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0043	CADMIUM (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0043	COPPER (PM10)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	199110	199610
093	0043	COPPER (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0043	IRON (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0043	LEAD (PM10)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	199110	199610
093	0043	LEAD (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0043	MOLYBDENUM (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0043	PM10 TOTAL 0-10UM	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	199110	199610
093	0043	SUSPENDED PARTICULAT	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	199112
093	0043	TOTAL DUSTFALL	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0043	ZINC (TSP)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0044	OUTDOOR TEMPERATURE	MONTANA RESOURCES-GUARD SHACK, BUTTE	BUTTE-SILVER BO	SILVER BOW	199007	
093	0044	STD DEV HZ WND DIR	MONTANA RESOURCES-GUARD SHACK, BUTTE	BUTTE-SILVER BO	SILVER BOW	199007	
093	0044	WIND DIRECTION	MONTANA RESOURCES-GUARD SHACK, BUTTE	BUTTE-SILVER BO	SILVER BOW	199007	

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
093	0044	WIND SPEED	MONTANA RESOURCES-GUARD SHACK, BUTTE	BUTTE-SILVER BO	SILVER BOW	199007	
093	0045	ARSENIC (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	CADMIUM (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	COPPER (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	IRON (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	LEAD (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	MOLYBDENUM (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0045	SUSPENDED PARTICULAT	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0045	ZINC (TSP)	ANACONDA MINERALS-YATES,2411 LOCUST	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	ARSENIC (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	CADMIUM (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	COPPER (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	IRON (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	LEAD (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	MOLYBDENUM (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0046	SUSPENDED PARTICULAT	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	TOTAL DUSTFALL	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	WIND DIRECTION	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	WIND SPEED	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0046	ZINC (TSP)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	ARSENIC (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	CADMIUM (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	COPPER (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	IRON (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	LEAD (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	MOLYBDENUM (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0047	SUSPENDED PARTICULAT	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0047	ZINC (TSP)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	ARSENIC (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	CADMIUM (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	COPPER (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	IRON (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	LEAD (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	MOLYBDENUM (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198501	198512
093	0048	SUSPENDED PARTICULAT	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0048	ZINC (TSP)	ANACONDA MINERALS-BARREL POND,CONC YARD	BUTTE-SILVER BO	SILVER BOW	198401	198512
093	0049	ARSENIC (TSP)	MONTANA RESOURCES-COLUMBIA GARDENS	BUTTE-SILVER BO	SILVER BOW	198701	199112
093	0049	CADMIUM (TSP)	MONTANA RESOURCES-COLUMBIA GARDENS	BUTTE-SILVER BO	SILVER BOW	198701	199112
093	0049	COPPER (TSP)	MONTANA RESOURCES-COLUMBIA GARDENS	BUTTE-SILVER BO	SILVER BOW	198701	199112
093	0049	LEAD (TSP)	MONTANA RESOURCES-COLUMBIA GARDENS	BUTTE-SILVER BO	SILVER BOW	198701	199112
093	0049	SUSPENDED PARTICULAT	MONTANA RESOURCES-COLUMBIA GARDENS	BUTTE-SILVER BO	SILVER BOW	198701	199112

093	0050	ARSENIC (TSP)	MONTANA RESOURCES-BARGE STATION	BUTTE-SILVER BO	SILVER BOW	198612	199112
093	0050	CADMIUM (TSP)	MONTANA RESOURCES-BARGE STATION	BUTTE-SILVER BO	SILVER BOW	198612	199112
093	0050	COPPER (TSP)	MONTANA RESOURCES-BARGE STATION	BUTTE-SILVER BO	SILVER BOW	198612	199112
093	0050	LEAD (TSP)	MONTANA RESOURCES-BARGE STATION	BUTTE-SILVER BO	SILVER BOW	198612	199112
093	0050	SUSPENDED PARTICULAT	MONTANA RESOURCES-BARGE STATION	BUTTE-SILVER BO	SILVER BOW	198612	199112
093	0053	CARBON MONOXIDE	STORM SEWER,BUTTE;HARRISON AVE & I-90	BUTTE-SILVER BO	SILVER BOW	199711	
093	0053	STD DEV HZ WND DIR	STORM SEWER,BUTTE;HARRISON AVE & I-90	BUTTE-SILVER BO	SILVER BOW	199711	
093	0053	WIND DIRECTION	STORM SEWER,BUTTE;HARRISON AVE & I-90	BUTTE-SILVER BO	SILVER BOW	199711	
093	0053	WIND SPEED	STORM SEWER,BUTTE;HARRISON AVE & I-90	BUTTE-SILVER BO	SILVER BOW	199711	
093	0054	COPPER (PM10)	BELMONT SOUTH;616 E MERCURY,BUTTE	BUTTE-SILVER BO	SILVER BOW	199611	
093	0054	LEAD (PM10)	BELMONT SOUTH;616 E MERCURY,BUTTE	BUTTE-SILVER BO	SILVER BOW	199611	
093	0054	PM10 - LOCAL CONDITI	BELMONT SOUTH;616 E MERCURY,BUTTE	BUTTE-SILVER BO	SILVER BOW	199801	
093	0054	PM10 TOTAL 0-10UM	BELMONT SOUTH;616 E MERCURY,BUTTE	BUTTE-SILVER BO	SILVER BOW	199611	199712
093	0906	SULFUR DIOXIDE	VORTAC		SILVER BOW	197301	197312
093	0906	SULFUR DIOXIDE	VORTAC		SILVER BOW	197301	197512
093	1007	ARSENIC (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1007	BENZENE SOL ORG(TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1007	CADMIUM (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1007	FLUORIDE (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197112
093	1007	LEAD (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1007	SULFATE (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197112
093	1007	SUSPENDED PARTICULAT	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1007	ZINC (TSP)	RAMSAY SCHOOL (RAMSAY)		SILVER BOW	197101	197212
093	1014	SUSPENDED PARTICULAT	COLUMBIA GARDENS		SILVER BOW	197401	197512
093	1015	NITRATE (TSP)	TIERNEY RESIDENCE, RAMSAY		SILVER BOW	197901	198012
093	1015	SULFATE (TSP)	TIERNEY RESIDENCE, RAMSAY		SILVER BOW	197901	197912
093	1015	SUSPENDED PARTICULAT	TIERNEY RESIDENCE, RAMSAY		SILVER BOW	197501	198112
093	1018	FLUORIDE(VEGETATION)	RHONE-POULENC,#1 UELAND,1.5 MI SE RAMSAY		SILVER BOW	198211	199609
093	1019	FLUORIDE(VEGETATION)	RHONE-POULENC,#2 UELAND,2.5 MI SE RAMSAY		SILVER BOW	198211	199609
093	1020	FLUORIDE(VEGETATION)	RHONE-POULENC,#3 UELAND,1.25 M SW RAMSAY		SILVER BOW	198211	199609
093	1023	FLUORIDE(VEGETATION)	RHONE-POULENC,#6 HILDERMAN,.25 M W RAMSY		SILVER BOW	198211	199609
093	1024	FLUORIDE(VEGETATION)	RHONE-POULENC,#7 TAMIETTI,1 MI NW RAMSAY		SILVER BOW	198505	199609
093	1027	FLUORIDE(VEGETATION)	RHONE-POULENC,#13 UELAND,2 MI SW RAMSAY		SILVER BOW	198301	199609
093	1029	FLUORIDE(VEGETATION)	RHONE-POULENC,#16 CRADDOCK,4.5 M NW RMSY		SILVER BOW	198301	199609
093	1030	FLUORIDE(VEGETATION)	RHONE-POULENC,#17 ERICKSON'S HAY PASTURE		SILVER BOW	198505	199609
095	0001	PM10 - LOCAL CONDITI	STILLWATER MINE UPWIND #1, NYE		STILLWATER	199801	
095	0001	PM10 TOTAL 0-10UM	STILLWATER MINE UPWIND #1, NYE		STILLWATER	198806	199712
095	0002	ARSENIC (PM10)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199101	
095	0002	CADMIUM (PM10)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199101	199212
095	0002	CHROMIUM (PM10)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199101	
095	0002	CHROMIUM (TSP)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199001	199012
095	0002	LEAD (PM10)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199101	
095	0002	LEAD (TSP)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199001	199012
095	0002	PM10 - LOCAL CONDITI	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199801	
095	0002	PM10 TOTAL 0-10UM	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	198806	199712
095	0002	SUSPENDED PARTICULAT	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	198806	199102
095	0002	ZINC (PM10)	STILLWATER MINE DOWNWIND SITE #2		STILLWATER	199101	
095	0003	OUTDOOR TEMPERATURE	STILLWATER MINE MET STATION, NYE		STILLWATER	199003	199204
095	0003	STD DEV HZ WND DIR	STILLWATER MINE MET STATION, NYE		STILLWATER	199003	199204
095	0003	WIND DIRECTION	STILLWATER MINE MET STATION, NYE		STILLWATER	198801	199204

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
095	0003	WIND SPEED	STILLWATER MINE MET STATION, NYE		STILLWATER	198801	199204
095	0004	OUTDOOR TEMPERATURE	STILLWATER SMELTER MET STATION,COLUMBUS		STILLWATER	199005	199303
095	0004	STD DEV HZ WND DIR	STILLWATER SMELTER MET STATION,COLUMBUS		STILLWATER	199005	199303
095	0004	WIND DIRECTION	STILLWATER SMELTER MET STATION,COLUMBUS		STILLWATER	199005	199303
095	0004	WIND SPEED	STILLWATER SMELTER MET STATION,COLUMBUS		STILLWATER	199005	199303
097	0005	ARSENIC (PM10)	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	CADMIUM (PM10)	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	CHROMIUM (PM10)	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	COPPER (PM10)	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	LEAD (PM10)	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	OUTDOOR TEMPERATURE	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	199006	199207
097	0005	PM10 TOTAL 0-10UM	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199105
097	0005	STD DEV HZ WND DIR	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	199006	199207
097	0005	WIND DIRECTION	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199207
097	0005	WIND SPEED	STILLWATER PGM, EAST BOULDER MINE		SWEET GRASS	198811	199207
099	0004	SULFATION RATE	CIRCLE8 RANCH BOX 729 CHOTEAU MT 59422		TETON	198504	198512
099	0004	SUSPENDED PARTICULAT	CIRCLE8 RANCH BOX 729 CHOTEAU MT 59422		TETON	198501	198512
101	0008	SULFATION RATE	ANABELLE SHEETS BOX 428 OILMONT MT 59466		TOOLE	198501	198712
105	0001	SULFATION RATE	BOX 506 POPLAR MT 59255		VALLEY	198301	198412
105	0002	NITRATE (TSP)	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198501	198712
105	0002	OUTDOOR TEMPERATURE	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198701	198712
105	0002	SULFATE (TSP)	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198501	198712
105	0002	SULFATION RATE	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198501	198712
105	0002	SUSPENDED PARTICULAT	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198501	198712
105	0002	WIND DIRECTION	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198703	198712
105	0002	WIND SPEED	LUSTRE, MT SEC 4 T3 ON R44E		VALLEY	198703	198712
111	0001	SULFATION RATE	214 PUEBLO ST. BILLINGS MT	BILLINGS	YELLOWSTONE	198401	198612
111	0003	SULFATION RATE	113 BITTERROOT DR, BILLINGS, MT	BILLINGS	YELLOWSTONE	198201	199012
111	0004	SULFATION RATE	114 JOHNSON LANE	BILLINGS	YELLOWSTONE	198201	199012
111	0005	BENZENE SOL ORG(TSP)	FAIRGROUNDS COMPLEX	BILLINGS	YELLOWSTONE	197101	197112
111	0005	CADMIUM (TSP)	FAIRGROUNDS COMPLEX	BILLINGS	YELLOWSTONE	197101	197112
111	0005	LEAD (TSP)	FAIRGROUNDS COMPLEX	BILLINGS	YELLOWSTONE	197101	197112
111	0005	SUSPENDED PARTICULAT	FAIRGROUNDS COMPLEX	BILLINGS	YELLOWSTONE	197101	197412
111	0005	ZINC (TSP)	FAIRGROUNDS COMPLEX	BILLINGS	YELLOWSTONE	197101	197112
111	0006	ALUMINUM (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	197812
111	0006	ARSENIC (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	198012
111	0006	CADMIUM (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197804	198012
111	0006	CHROMIUM (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	COPPER (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197803	198012
111	0006	IRON (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	197812
111	0006	LEAD (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	198012

111	0006	MANGANESE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	NICKEL (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	NITRATE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197601	197612
111	0006	NITRATE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197601	197712
111	0006	NITRATE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	NITROGEN DIOXIDE	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198112
111	0006	SULFATE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197601	197712
111	0006	SULFATE (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	SULFATION RATE	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	199012
111	0006	SULFUR DIOXIDE	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197501	198112
111	0006	SUSPENDED PARTICULAT	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197101	198312
111	0006	VANADIUM (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	WIND DIRECTION	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	WIND SPEED	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197901	198012
111	0006	ZINC (TSP)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	BILLINGS	YELLOWSTONE	197801	197812
111	0007	ARSENIC (TSP)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	197112
111	0007	BENZENE SOL ORG(TSP)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	197112
111	0007	CADMIUM (TSP)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	197112
111	0007	LEAD (TSP)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	197112
111	0007	SULFATION RATE	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197801	199012
111	0007	SUSPENDED PARTICULAT	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	198212
111	0007	ZINC (TSP)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	BILLINGS	YELLOWSTONE	197101	197112
111	0008	ALUMINUM (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197801	197812
111	0008	ARSENIC (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197801	197812
111	0008	BENZENE SOL ORG(TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197107	197112
111	0008	CADMIUM (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197107	197812
111	0008	COPPER (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197801	197812
111	0008	IRON (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197801	197812
111	0008	LEAD (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197107	197812
111	0008	SULFATION RATE	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197801	199012
111	0008	SUSPENDED PARTICULAT	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197107	199112
111	0008	SUSPENDED PARTICULAT	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	198101	199012
111	0008	ZINC (TSP)	CITY HALL, 73RD AVE N & 27TH ST	BILLINGS	YELLOWSTONE	197107	197812
111	0009	ALUMINUM (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0009	ARSENIC (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0009	COPPER (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0009	IRON (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0009	LEAD (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0009	SULFATION RATE	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197901	198512
111	0009	SUSPENDED PARTICULAT	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197107	198512
111	0009	ZINC (TSP)	GRAND AVE SCHOOL, 1320 GRAND AVE	BILLINGS	YELLOWSTONE	197801	197812
111	0010	SULFATION RATE	GARDEN AVE BILLINGS, MT	BILLINGS	YELLOWSTONE	198201	198612
111	0011	SULFATION RATE	33 AND 2ND AVE N. BILLINGS, MT	BILLINGS	YELLOWSTONE	198201	198612
111	0013	SULFATION RATE	WEST COOP.LAUREL	LAUREL	YELLOWSTONE	198101	199012
111	0014	SULFATION RATE	MTN VIEW BLVD BILLINGS, MT	BILLINGS	YELLOWSTONE	198201	198612
111	0015	OUTDOOR TEMPERATURE	LAUREL BN, EAST RAILROAD ST	LAUREL	YELLOWSTONE	198101	198212
111	0015	SULFUR DIOXIDE	LAUREL BN, EAST RAILROAD ST	LAUREL	YELLOWSTONE	198101	198212
111	0015	WIND DIRECTION	LAUREL BN, EAST RAILROAD ST	LAUREL	YELLOWSTONE	198101	198212
111	0015	WIND SPEED	LAUREL BN, EAST RAILROAD ST	LAUREL	YELLOWSTONE	198101	198212
111	0016	ATMOSPHERIC STABILTY	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711	

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER	PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
111	0016	OUTDOOR TEMPERATURE	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711
111	0016	SO2 MAX 5-MIN AVG	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	199009
111	0016	STD DEV HZ WND DIR	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711
111	0016	SULFUR DIOXIDE	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711
111	0016	WIND DIRECTION	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711
111	0016	WIND SPEED	BLAQTC - LAUREL, 1/2 MI E OF CENEX	LAUREL	YELLOWSTONE	198711
111	0017	SULFATION RATE	1200 MINNESOTA AVE	BILLINGS	YELLOWSTONE	198201
111	0018	SULFATION RATE	5TH AND SOUTH 28TH BILLINGS MT	BILLINGS	YELLOWSTONE	198201
111	0019	SULFATION RATE	SOUTH 27TH & 11TH AVE S., BILLINGS	BILLINGS	YELLOWSTONE	198201
111	0021	SULFATION RATE	EAST OF CONOCO REFINERY, FONTAGE ROAD	BILLINGS	YELLOWSTONE	198201
111	0022	SULFATION RATE	TWO MOON PARK FRONTAGE ROAD	BILLINGS	YELLOWSTONE	198201
111	0025	SULFATION RATE	STATE ST & 3RD SOUTH, BILLINGS	BILLINGS	YELLOWSTONE	198401
111	0027	SULFATION RATE	NEWMAN SCHOOL BILLINGS MT	BILLINGS	YELLOWSTONE	198201
111	0028	SULFATION RATE	BENCH SCHOOL MILTON ROAD	BILLINGS	YELLOWSTONE	198201
111	0032	SULFATION RATE	KLENCK LANE BILLINGS MT	BILLINGS	YELLOWSTONE	198201
111	0034	SULFATION RATE	PICCOLO & W FRONTAGE RD, BILLINGS	BILLINGS	YELLOWSTONE	198201
111	0035	SULFUR DIOXIDE	HI-BALL TRUCKING, BILLINGS	BILLINGS	YELLOWSTONE	197401
111	0037	SULFATION RATE	JOHNSON AND LOCKWOOD BILLINGS, MT	BILLINGS	YELLOWSTONE	198201
111	0038	SULFATION RATE	JOHNSON RD NORTH BILLINGS, MT	BILLINGS	YELLOWSTONE	198201
111	0043	SULFATION RATE	WOODLAND DRIVE, BILLINGS	BILLINGS	YELLOWSTONE	198201
111	0044	SULFATION RATE	COBURN ROAD BILLINGS, MT	BILLINGS	YELLOWSTONE	198201
111	0047	SUSPENDED PARTICULAT	LAB-SEWAGE TREATMENT PLANT	BILLINGS	YELLOWSTONE	197101
111	0049	SUSPENDED PARTICULAT	LAB-WATER TREATMENT PLANT	BILLINGS	YELLOWSTONE	197201
111	0052	CARBON MONOXIDE	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197501
111	0052	NITROGEN DIOXIDE	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197401
111	0052	NITROGEN DIOXIDE	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197501
111	0052	OZONE	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197401
111	0052	SULFUR DIOXIDE	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197501
111	0052	TOTAL NMOC	DIVISION AND GRAND	BILLINGS	YELLOWSTONE	197501
111	0053	CARBON MONOXIDE	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197501
111	0053	NITROGEN DIOXIDE	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197501
111	0053	OZONE	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197501
111	0053	SULFUR DIOXIDE	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197501
111	0053	TOTAL HYDROCARBONS	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197601
111	0053	TOTAL NMOC	27TH AND MONTANA	BILLINGS	YELLOWSTONE	197501
111	0054	CARBON MONOXIDE	11TH & SO 27TH, N OF GREAT WESTERN	BILLINGS	YELLOWSTONE	197501
111	0054	TOTAL HYDROCARBONS	11TH & SO 27TH, N OF GREAT WESTERN	BILLINGS	YELLOWSTONE	197601
111	0054	TOTAL NMOC	11TH & SO 27TH, N OF GREAT WESTERN	BILLINGS	YELLOWSTONE	197601
111	0059	ALUMINUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801
111	0059	ALUMINUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801
111	0059	ARSENIC (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801

111	0059	BAROMETRIC PRESSURE	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197901	198012
111	0059	CADMIUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	CADMIUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	CHROMIUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	COPPER (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	COPPER (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	IRON (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	IRON (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197912
111	0059	LEAD (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	LEAD (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	MANGANESE (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	MANGANESE (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	NICKEL (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	NICKEL (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	NITRATE (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	NITRIC OXIDE	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197901	198012
111	0059	NITROGEN DIOXIDE	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	OXIDES OF NITROGEN	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197901	198012
111	0059	OZONE	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198112
111	0059	SULFATE (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	SULFATE (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	SULFUR DIOXIDE	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198112
111	0059	SUSPENDED PARTICULAT	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	SUSPENDED PARTICULAT	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198112
111	0059	TOTAL HYDROCARBONS	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197912
111	0059	VANADIUM (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	198012
111	0059	WIND DIRECTION	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197901	198012
111	0059	WIND SPEED	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197901	198012
111	0059	ZINC (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197812
111	0059	ZINC (TSP)	CENTRAL PARK, BILLINGS	BILLINGS	YELLOWSTONE	197801	197912
111	0060	SUSPENDED PARTICULAT	CENTRAL PARK	BILLINGS	YELLOWSTONE	197801	197812
111	0061	CARBON MONOXIDE	METRA PARKING LOT,6TH AVE & EXPO DRIVE	BILLINGS	YELLOWSTONE	198001	198603
111	0061	SULFATION RATE	METRA PARKING LOT,6TH AVE & EXPO DRIVE	BILLINGS	YELLOWSTONE	198401	199012
111	0061	SULFUR DIOXIDE	METRA PARKING LOT,6TH AVE & EXPO DRIVE	BILLINGS	YELLOWSTONE	198101	198212
111	0061	WIND DIRECTION	METRA PARKING LOT,6TH AVE & EXPO DRIVE	BILLINGS	YELLOWSTONE	198001	198612
111	0061	WIND SPEED	METRA PARKING LOT,6TH AVE & EXPO DRIVE	BILLINGS	YELLOWSTONE	198001	198612
111	0062	BAROMETRIC PRESSURE	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198001	198012
111	0062	OUTDOOR TEMPERATURE	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198101	198312
111	0062	SULFUR DIOXIDE	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198007	198312
111	0062	SUSPENDED PARTICULAT	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198007	198812
111	0062	SUSPENDED PARTICULAT	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198201	198512
111	0062	WIND DIRECTION	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198001	198312
111	0062	WIND SPEED	TAFT SCHOOL, 623 S 25TH STREET	BILLINGS	YELLOWSTONE	198001	198312
111	0063	SULFUR DIOXIDE	SHAWNEE PARK	BILLINGS	YELLOWSTONE	198201	198212
111	0063	WIND DIRECTION	SHAWNEE PARK	BILLINGS	YELLOWSTONE	198201	198212
111	0063	WIND SPEED	SHAWNEE PARK	BILLINGS	YELLOWSTONE	198201	198212
111	0064	SULFUR DIOXIDE	N JOHNSON LANE OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198201	198612
111	0064	WIND DIRECTION	N JOHNSON LANE OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198301	198612
111	0064	WIND SPEED	N JOHNSON LANE OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198301	198612
111	0065	OUTDOOR TEMPERATURE	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198101	198712



**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
111	0065	PM10 TOTAL 0-10UM	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	199012	199103
111	0065	SULFATION RATE	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198401	199012
111	0065	SULFUR DIOXIDE	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198109	198712
111	0065	SUSPENDED PARTICULAT	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198301	198712
111	0065	WIND DIRECTION	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198109	198712
111	0065	WIND SPEED	LOCKWOOD COUNTY PARK	BILLINGS	YELLOWSTONE	198101	198712
111	0066	OUTDOOR TEMPERATURE	COBURN ROAD	BILLINGS	YELLOWSTONE	198410	
111	0066	SO2 MAX 5-MIN AVG	COBURN ROAD	BILLINGS	YELLOWSTONE	198811	
111	0066	STD DEV HZ WND DIR	COBURN ROAD	BILLINGS	YELLOWSTONE	198101	
111	0066	SULFATION RATE	COBURN ROAD	BILLINGS	YELLOWSTONE	198401	199012
111	0066	SULFUR DIOXIDE	COBURN ROAD	BILLINGS	YELLOWSTONE	198101	
111	0066	WIND DIRECTION	COBURN ROAD	BILLINGS	YELLOWSTONE	198101	
111	0066	WIND SPEED	COBURN ROAD	BILLINGS	YELLOWSTONE	198101	
111	0067	SULFATION RATE	SANDSTONE SCHOOL, 1440 NUTTER BLVD	BILLINGS	YELLOWSTONE	198401	198612
111	0067	SUSPENDED PARTICULAT	SANDSTONE SCHOOL, 1440 NUTTER BLVD	BILLINGS	YELLOWSTONE	198301	198612
111	0072	PM10 TOTAL 0-10UM	GRAND AVENUE,1320 GRAND AVE,BILLINGS	BILLINGS	YELLOWSTONE	198606	198712
111	0072	SULFATION RATE	GRAND AVENUE,1320 GRAND AVE,BILLINGS	BILLINGS	YELLOWSTONE	198601	198712
111	0072	SUSPENDED PARTICULAT	GRAND AVENUE,1320 GRAND AVE,BILLINGS	BILLINGS	YELLOWSTONE	198601	198712
111	0073	OUTDOOR TEMPERATURE	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	OZONE	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	PM10 TOTAL 0-10UM	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198901	198909
111	0073	SO2 MAX 5-MIN AVG	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198901	198909
111	0073	SULFATION RATE	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	SULFUR DIOXIDE	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	SUSPENDED PARTICULAT	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	WIND DIRECTION	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0073	WIND SPEED	SCOTTISH RITES, CORNER 14TH AND TERRY	BILLINGS	YELLOWSTONE	198711	198909
111	0074	CARBON MONOXIDE	METRA-6TH & EXPOSITION SE	BILLINGS	YELLOWSTONE	198801	198803
111	0074	WIND DIRECTION	METRA-6TH & EXPOSITION SE	BILLINGS	YELLOWSTONE	198801	198803
111	0074	WIND SPEED	METRA-6TH & EXPOSITION SE	BILLINGS	YELLOWSTONE	198801	198803
111	0075	CARBON MONOXIDE	METRA,EXPO DR & 4TH AVE N, BILLINGS	BILLINGS	YELLOWSTONE	198810	199211
111	0075	STD DEV HZ WND DIR	METRA,EXPO DR & 4TH AVE N, BILLINGS	BILLINGS	YELLOWSTONE	198810	199211
111	0075	WIND DIRECTION	METRA,EXPO DR & 4TH AVE N, BILLINGS	BILLINGS	YELLOWSTONE	198810	199211
111	0075	WIND SPEED	METRA,EXPO DR & 4TH AVE N, BILLINGS	BILLINGS	YELLOWSTONE	198810	199211
111	0076	OUTDOOR TEMPERATURE	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0076	SO2 MAX 5-MIN AVG	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0076	STD DEV HZ WND DIR	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0076	SULFUR DIOXIDE	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0076	WIND DIRECTION	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0076	WIND SPEED	PONDEROSA SCHOOL, 4188 KING AVE EAST	BILLINGS	YELLOWSTONE	198910	199206
111	0077	PM10 TOTAL 0-10UM	FEDERAL CREDIT UNION,2522-4TH AVE NORTH	BILLINGS	YELLOWSTONE	198911	199012

111	0077	PM10 TOTAL 0-10UM	FEDERAL CREDIT UNION,2522-4TH AVE NORTH	BILLINGS	YELLOWSTONE	198911	199208
111	0078	CARBON MONOXIDE	DIAMOND PARKING LOT, 315 N 27TH ST,BLGS	BILLINGS	YELLOWSTONE	199211	199404
111	0078	PM10 TOTAL 0-10UM	DIAMOND PARKING LOT, 315 N 27TH ST,BLGS	BILLINGS	YELLOWSTONE	199211	199404
111	0079	CARBON MONOXIDE	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199211	199707
111	0079	PM10 TOTAL 0-10UM	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199407	199707
111	0079	SO2 MAX 5-MIN AVG	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199512	199707
111	0079	STD DEV HZ WND DIR	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199211	199707
111	0079	SULFUR DIOXIDE	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199512	199707
111	0079	WIND DIRECTION	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199211	199707
111	0079	WIND SPEED	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	199211	199707
111	0079	CARBON MONOXIDE	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	200111	
111	0079	SULFUR DIOXIDE	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	BILLINGS	YELLOWSTONE	200111	
111	0080	SO2 MAX 5-MIN AVG	SACRIFICE CLIFF,1600 METERS W COBURN RD	BILLINGS	YELLOWSTONE	199305	200106
111	0080	STD DEV HZ WND DIR	SACRIFICE CLIFF,1600 METERS W COBURN RD	BILLINGS	YELLOWSTONE	199305	200106
111	0080	SULFUR DIOXIDE	SACRIFICE CLIFF,1600 METERS W COBURN RD	BILLINGS	YELLOWSTONE	199305	200106
111	0080	WIND DIRECTION	SACRIFICE CLIFF,1600 METERS W COBURN RD	BILLINGS	YELLOWSTONE	199305	200106
111	0080	WIND SPEED	SACRIFICE CLIFF,1600 METERS W COBURN RD	BILLINGS	YELLOWSTONE	199305	200106
111	0081	CARBON MONOXIDE	NORWEST, 130 NORTH 27TH STREET	BILLINGS	YELLOWSTONE	199404	199908
111	0081	PM10 TOTAL 0-10UM	NORWEST, 130 NORTH 27TH STREET	BILLINGS	YELLOWSTONE	199407	199712
111	0082	CARBON MONOXIDE	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	199712	
111	0082	SO2 MAX 5-MIN AVG	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	200107	
111	0082	STD DEV HZ WND DIR	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	199712	
111	0082	SULFUR DIOXIDE	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	200107	
111	0082	WIND DIRECTION	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	199712	
111	0082	WIND SPEED	BLGS BRIDAL SHOP 8 GRAND AVE	BILLINGS	YELLOWSTONE	199712	
111	0083	SO2 MAX 5-MIN AVG	LOWER COBURN ROAD - 300 COBURN ROAD	BILLINGS	YELLOWSTONE	199908	
111	0083	STD DEV HZ WND DIR	LOWER COBURN ROAD - 300 COBURN ROAD	BILLINGS	YELLOWSTONE	199910	
111	0083	SULFUR DIOXIDE	LOWER COBURN ROAD - 300 COBURN ROAD	BILLINGS	YELLOWSTONE	199908	
111	0083	WIND DIRECTION	LOWER COBURN ROAD - 300 COBURN ROAD	BILLINGS	YELLOWSTONE	199910	
111	0083	WIND SPEED	LOWER COBURN ROAD - 300 COBURN ROAD	BILLINGS	YELLOWSTONE	199910	
111	1001	SULFATION RATE	LAUREL JR HIGH, 410 COLORADO AVE	LAUREL	YELLOWSTONE	197801	199012
111	1001	SULFUR DIOXIDE	LAUREL JR HIGH, 410 COLORADO AVE	LAUREL	YELLOWSTONE	197301	197312
111	1001	SUSPENDED PARTICULAT	LAUREL JR HIGH, 410 COLORADO AVE	LAUREL	YELLOWSTONE	197101	199112
111	1003	SULFATION RATE	ROUNDHOUSE ROAD, LAUREL	LAUREL	YELLOWSTONE	198201	199012
111	1004	SULFATION RATE	CITY SEWAGE TREATMENT PLAN, LAUREL	LAUREL	YELLOWSTONE	198201	198612
111	1005	SULFATION RATE	LAUREL WATER PLANT	LAUREL	YELLOWSTONE	197801	199012
111	1005	SULFUR DIOXIDE	LAUREL WATER PLANT	LAUREL	YELLOWSTONE	197401	197612
111	1005	SULFUR DIOXIDE	LAUREL WATER PLANT	LAUREL	YELLOWSTONE	197601	197612
111	1006	SULFATION RATE	W. LAUREL CHURCH, LAUREL	LAUREL	YELLOWSTONE	198201	199012
111	1007	SULFATION RATE	A&W ROOTBEER STAND, LAUREL	LAUREL	YELLOWSTONE	198401	198612
111	1008	SULFATION RATE	EAST OF LAUREL	LAUREL	YELLOWSTONE	197801	198612
111	1008	SULFUR DIOXIDE	EAST OF LAUREL	LAUREL	YELLOWSTONE	197301	197612
111	1009	SULFATION RATE	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197801	199012
111	1009	SULFUR DIOXIDE	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197601	197712
111	1009	SULFUR DIOXIDE	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197601	198012
111	1009	SULFUR DIOXIDE	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197701	197712
111	1009	TOTAL HYDROCARBONS	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197601	197612
111	1009	WIND DIRECTION	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197601	198012
111	1009	WIND SPEED	FARM EAST OF CENEX, LAUREL	LAUREL	YELLOWSTONE	197601	198012
111	1010	SULFATION RATE	ROOT BEER STAND, LAUREL	LAUREL	YELLOWSTONE	198401	198612

**TABLE 1 - HISTORICAL MONITORING SUMMARY (continued)**

SITE NUMBER		PARAMETER	STREET ADDRESS	CITY	COUNTY	DATE SAMPLING BEGAN (Year/Month)	DATE SAMPLING ENDED (year/month)
111	1014	SULFUR DIOXIDE	LAUREL NEW FARM	LAUREL	YELLOWSTONE	198011	198212
111	1014	SUSPENDED PARTICULAT	LAUREL NEW FARM	LAUREL	YELLOWSTONE	198101	198312
111	1014	WIND DIRECTION	LAUREL NEW FARM	LAUREL	YELLOWSTONE	198011	198212
111	1014	WIND SPEED	LAUREL NEW FARM	LAUREL	YELLOWSTONE	198011	198212
111	1065	AMBIENT AVG TEMPERAT	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	AMBIENT MAX TEMPERAT	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	AMBIENT MIN TEMPERAT	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	ATMOSPHERIC STABILTY	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	1065	ELAPSED SAMPLE TIME	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	NITRATE (PM10)	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199609	199706
111	1065	OUTDOOR TEMPERATURE	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	1065	PM10 - LOCAL CONDITI	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199801	
111	1065	PM10 TOTAL 0-10UM	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199601	
111	1065	PM2.5 - LOCAL CONDIT	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SAMPLE AVG BARO PRES	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SAMPLE FLOW RATE,CV	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SAMPLE MAX BARO PRES	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SAMPLE MIN BARO PRES	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SAMPLE VOLUME	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199901	
111	1065	SO2 MAX 5-MIN AVG	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199009	
111	1065	STD DEV HZ WND DIR	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	1065	SULFATE (PM10)	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	199609	199706
111	1065	SULFUR DIOXIDE	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	1065	WIND DIRECTION	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	1065	WIND SPEED	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	BILLINGS	YELLOWSTONE	198711	
111	2003	OZONE	WORDEN OZONE, ROAD 21 NE OF WORDEN		YELLOWSTONE	197801	197812
111	2004	ATMOSPHERIC STABILTY	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2004	OUTDOOR TEMPERATURE	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2004	STD DEV HZ WND DIR	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2004	SULFUR DIOXIDE	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2004	WIND DIRECTION	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2004	WIND SPEED	BLAQTC - COULSON ROAD (3701 COULSON RD)	BILLINGS	YELLOWSTONE	198711	198912
111	2005	ATMOSPHERIC STABILTY	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2005	OUTDOOR TEMPERATURE	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2005	SO2 MAX 5-MIN AVG	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	199009	
111	2005	STD DEV HZ WND DIR	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2005	SULFUR DIOXIDE	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2005	WIND DIRECTION	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2005	WIND SPEED	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	BILLINGS	YELLOWSTONE	198910	
111	2006	OUTDOOR TEMPERATURE	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	BILLINGS	YELLOWSTONE	199311	
111	2006	STD DEV HZ WND DIR	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	BILLINGS	YELLOWSTONE	199311	

111	2006	SULFUR DIOXIDE	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	BILLINGS	YELLOWSTONE	199311	199912
111	2006	WIND DIRECTION	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	BILLINGS	YELLOWSTONE	199311	
111	2006	WIND SPEED	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	BILLINGS	YELLOWSTONE	199311	
111	2007	OUTDOOR TEMPERATURE	PINE HILLS, 4250 PINE HILLS DRIVE	BILLINGS	YELLOWSTONE	199311	
111	2007	STD DEV HZ WND DIR	PINE HILLS, 4250 PINE HILLS DRIVE	BILLINGS	YELLOWSTONE	199311	
111	2007	SULFUR DIOXIDE	PINE HILLS, 4250 PINE HILLS DRIVE	BILLINGS	YELLOWSTONE	199311	199912
111	2007	WIND DIRECTION	PINE HILLS, 4250 PINE HILLS DRIVE	BILLINGS	YELLOWSTONE	199311	
111	2007	WIND SPEED	PINE HILLS, 4250 PINE HILLS DRIVE	BILLINGS	YELLOWSTONE	199311	
111	2008	CARBON MONOXIDE	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	OUTDOOR TEMPERATURE	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	SO2 MAX 5-MIN AVG	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	STD DEV HZ WND DIR	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	SULFUR DIOXIDE	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	WIND DIRECTION	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707
111	2008	WIND SPEED	SENIOR HIGH 301 GRAND BLGS	BILLINGS	YELLOWSTONE	199512	199707